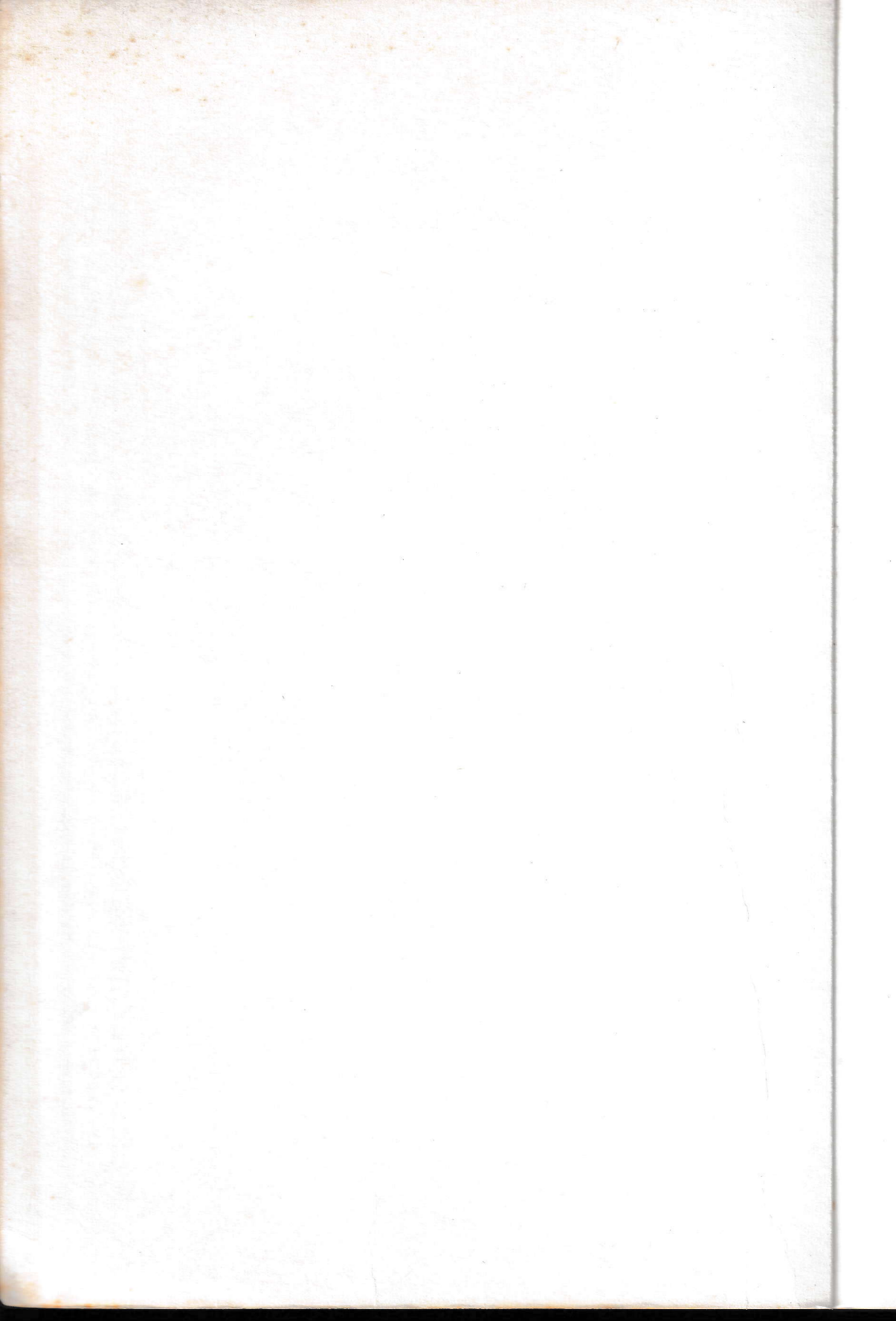# 15 GRAPHIC GAMES FOR THE SPECTRUM

Richard G. Hurley

ZX Spectrum

15 Graphic Games
for the Spectrum

15 Graphic Games for the Spectrum

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CONTENTS

This book is written in the memory of
my late father George Hurley

ACKNOWLEDGEMENTS

INTRODUCTION

This book is intended for all Spectrum owners who, having paid over £90 for their computer, do not wish to spend a similar sum on a selection of decent games programs. Unlike many other books, this one does not contain any program that takes only a few minutes to enter and even less time to become thoroughly boring. In this book you will find 15 games, divided into 19 programs, which, though they take a long time to enter, will provide you (and your family) with endless hours of amusement.

The range of topics covered includes games of skill, chance and adventure, and 13 of the 15 games will fit into the 16K machine, each game being designed to make the best possible use of the many advanced features available in Spectrum Basic and machine code. Each game is accompanied by a short description, program notes, a full set of playing instructions and, most important of all, a clear program listing to be typed into the computer.

As all the games in this book are of a graphical nature, use has been made of the *user-defined graphics* facility, in order to enable the incorporation of useful and entertaining characters. In each case, these are clearly labelled (underlined) in the program listing and should be carefully entered using the 'GRAPHICS' command. If in doubt consult the Spectrum Manual.

In order to improve and speed up some of the games, machine code has been used. In such cases, the code has been put into the data lines and should therefore be straightforward to enter.

Sky-diver

```
┌──────────────────────────────────────────────┐
│ ┌────────────■─┐ WIND          Score = Ø      │
│ └──────────────┘                              │
│                                               │
│                                               │
│                      ☻                        │
│                                               │
│                                               │
│              �████████████████                │
└──────────────────────────────────────────────┘
```
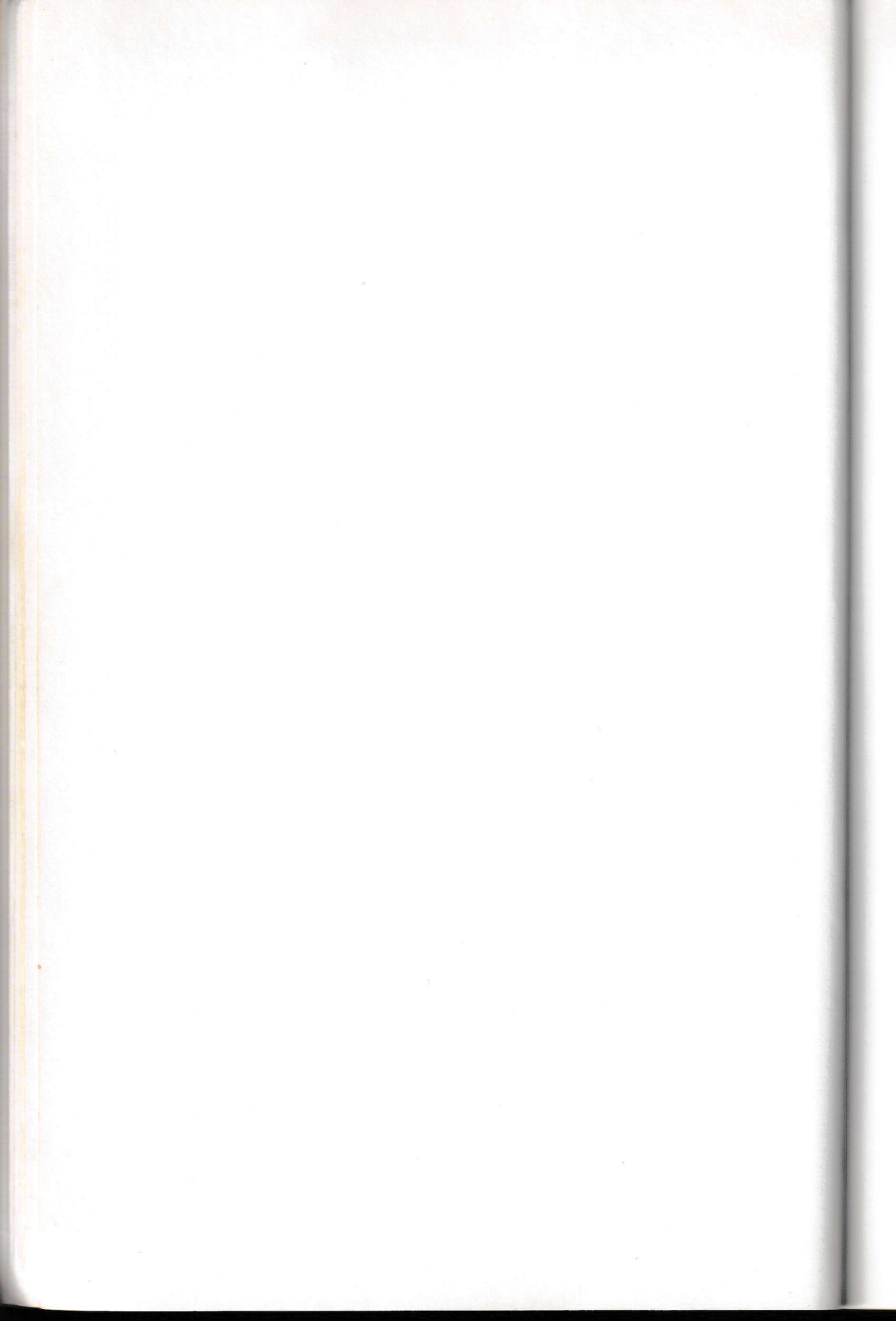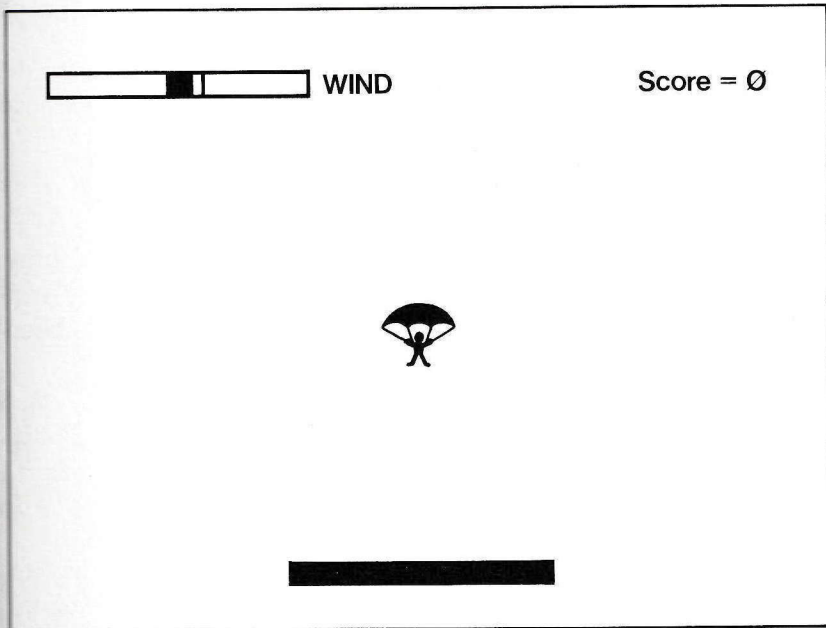
Description

You are a member of the crack Spectrum sky-diving display team and your orders for the day are to practise target dropping, in order to be ready for the big display in the presence of Lord Sinclair.

You are dropped from a small plane at a height of twenty-thousand feet and must then free fall for as long as possible, in order to limit the effects of the wind. At the last moment, you must open your parachute, which will then be carried by the wind to land, hopefully, on the target area. However, take care,

for after a certain amount of free fall you will become unconscious and unable to open your parachute, which is not equipped with an automatic device.

All this may sound easy, but in practice it is not, since the speed and direction of the wind are constantly changing, as indicated by the meter in the top left-hand corner of the screen, and both your drop from the plane and the moment of opening your chute must be exact for your landing to be on target. Points will be awarded for the precision of your landing and a bonus will be added for a dead-centre drop but, remember, you can only have ten drops in any one day. Take care and good luck!

Program

This program will easily fit into the 16K machine. The only difficulties likely to be encountered during the typing stage are in the lines that include user-defined graphics and these have been clearly marked in the program listing.

Instructions

Although the game is difficult to master and it is not easy to obtain high scores, the controls are straightforward and easy to use. Type the command 'RUN' to begin.

Controls

The Y-key is used to drop from the plane. The O-key is used to open your parachute.

Notes

The most complex part of mastering the game is in the understanding of the wind-speed-and-direction meter. The direction of the wind is indicated by the position of the moving needle with respect to the central block and its velocity is represented by the distance of the needle from the block.

After each drop, press any key to continue with the game.

```
   1 GO SUB 6000: LET sc=0: LET hs=0: FO
R f=0 TO 111: READ a: POKE USR "a"+f,a:
NEXT f
   2 FOR j=1 TO 10: BORDER 1: INK 3: PAP
ER 0: CLS : PRINT AT 21,15; BRIGHT 1;" "
   3 LET p=INT (RND*88): INK 4: PRINT AT
 21,13; BRIGHT 1;"   ";AT 21,16; BRIGHT 1
;"    "
   4 INK 6: PRINT AT 21,10; BRIGHT 1;"
 ";AT 0,5; BRIGHT 1; PAPER 5;" ": PRINT
AT 21,18; BRIGHT 1;"    ": PLOT 0,175: DR
AW 90,0: PLOT 0,168: DRAW 90,0
   5 PLOT 0,175: DRAW 0,-7: DATA 231,241
,255,255,255,33,199,31,252,9,253,255,255
,9,253,252,189,189,189,153,219,126
   6 PLOT 90,175: DRAW 0,-7: DATA 24,24,
60,60,102,66,195,0,0,0,60,60,60,24,24,12
6,219,153,153,60,102,66
   7 PRINT AT 0,12;"Wind": DATA 195,0,0,
0,0,1,15,63,127,127,225,192,126,255,255,
255,255,255,195,129,0,128
   8 DATA 240,252,254,254,135,3,128,32,2
4,6,1,0,0,0,3,4,24,96,128,0,0,0
   9 DATA 24,24,255,255,24,24,24,24,0,0,
0,0,1,BIN 1111011,255,255,0,0,0,0,224,24
1,255,255
  10 INK 6: LET f=0: BRIGHT 0
  15 PRINT AT 0,23;"Score=";sc;"  "
  25 IF INKEY$="y" THEN  GO TO 1000
  27 GO SUB 9500: GO SUB 4000
  28 PLOT 0,175: DRAW 0,-7
  30 GO TO 25
1005 LET x=f: FOR y=2 TO 19
1010 PRINT AT y,x;"c";AT y+1,x;"d";: BEE
P .02,0: PRINT AT y,x;"e";AT y+1,x;"f"
1012 LET k$=INKEY$
1015 GO SUB 9500
1017 IF y>14 THEN  LET k$=""
1018 IF k$="o" THEN  GO TO 2000
```

```
1020 PRINT AT y,x;" ": NEXT y
1030 PRINT AT 19,x;" ": PRINT AT 20,x;"
";AT 21,x; INK 2;"L": GO SUB 4500: FOR g
=10 TO 20: BEEP .08,-g: NEXT g: BEEP 1,-
21: LET sc=sc-10: LET sc=sc*(sc>0): PRIN
T AT 0,22;"Score=";sc;" ": PAUSE 0: NEXT
 j: GO TO 5000
1500 IF k$="o" THEN  GO TO 2000
1510 GO TO 30
2000 PRINT AT 1,f;"  ": FOR y=y TO 19: G
O SUB 3000
2020 NEXT y
2023 LET k=ATTR (21,x): IF k=2 OR k=3 TH
EN  GO TO 2025
2024 GO TO 2040
2025 PRINT AT 19,x-1;"   ";AT 18,x-1;"
  "
2030 PRINT AT 21,x;"d";AT 20,x;"c"
2035 PAUSE 0: NEXT j: GO TO 5000
2040 PRINT AT 20,x;"d";AT 19,x;"c"
2050 IF k=68 THEN  LET n=8+y/2
2055 IF k=70 THEN  LET n=2+y/2
2060 IF k<>67 THEN  GO TO 2100
2070 LET n=10+y: FOR f=1 TO 20: BEEP .05
,f: NEXT f
2100 FOR s=sc TO sc+n: LET sc=sc+1: PRIN
T AT 0,23;"Score=";sc;" ": BEEP .05,10:
NEXT s
2105 PAUSE 0
2110 NEXT j
2120 GO TO 5000
3000 PRINT AT y,x-1;"jck";AT y+1,x;"d";A
T y-1,x-1; INK 7;"ghi"
3005 PAUSE 5
3010 PRINT AT y,x-1;"   ";AT y+1,x;" ";A
T y-1,x-1;"    "
3012 LET d=(40-p)/20: LET x=x-d
3013 IF x>30 THEN  LET x=30
3014 IF x<1 THEN  LET x=1
```

```
3015 RETURN
3020 GO SUB 9500
3030 PRINT AT 1,f;" ": LET f=f+1
3040 RETURN
4000 PLOT p,168: DRAW 0,6: PLOT p,168: D
RAW  OVER 1;0,6: LET p=p+INT (RND*10)-IN
T (RND*10): IF p>0 AND p<80 THEN  PLOT p
,168: DRAW 0,6: RETURN
4010 LET p=(p<0): IF p>80 THEN  LET p=80
4020 RETURN
4500 RESTORE 113: LET c=x*8-8: PLOT c,0:
 DRAW  INK 2;24,0: FOR f=20 TO 1 STEP -1
4502 DATA .35,-1,.3,-1,.1,-1,.4,-1,.25,2
,.15,1,.25,1,.15,-1,.25,-1,.15,-2,.25,-1
4505 PRINT AT f,x; INK RND*6+1;"mn"
4510 IF f>9 THEN  READ r,s: BEEP r,s
4520 PRINT AT f,x; INK 0;"  "
4530 NEXT f: RETURN
5000 CLS : PRINT ''"        You Scored "
;sc;" Pts."
5010 IF hs>sc THEN  PAUSE 0: CLS : LET s
c=0: GO TO 2
5020 PRINT ''"Which is the High Score.":
 LET hs=sc: FOR j=1 TO 2: FOR h=1 TO 20:
 BEEP .05,h: NEXT h: NEXT j: PAUSE 0: CL
S : LET sc=0: GO TO 2
6000 BORDER 1: PAPER 0: INK 6: CLS
6020 FOR f=1 TO 4: FOR g=1 TO 4: INK g:
BEEP .05,g: PRINT AT 2,11;"Sky Diver": N
EXT g: NEXT f
6040 PRINT ''"Use the 'y' Key to drop th
e man,": PRINT '"and use the 'o' Key to
open his parachute.......": PRINT '"Afte
r each drop press a key to";'"continue."
;'"The later you open his";'"parachute t
he more points you";'"will score,but bew
are after a";'"certain point,you will no
t be"
6050 PRINT "able to open his parachute,a
```

nd";'"you will make a nice mess on the";
'"ground."
6060 PAUSE 0: CLS : BEEP .05,5: PRINT "N
.B Allow for the rather erratic";'"wind,
which will catch your";'"parachutist and
 blow him off";'"course.": PRINT ''"You
have 10 Drops with which you";'"must sco
re as many points as";'"possible."
6070 PRINT ''"Good Luck and Geronimo": P
RINT '"press a key to continue.": PAUSE
0: BEEP .05,5: CLS : RETURN
9000 STOP
9500 PRINT AT 1,f;" ": LET f=f+1: IF f<3
1 THEN PRINT AT 1,f;"ab": RETURN
9510 PRINT AT 1,31;" ": LET f=0: RETURN

Chapter Two

Graham the
Grass Snake
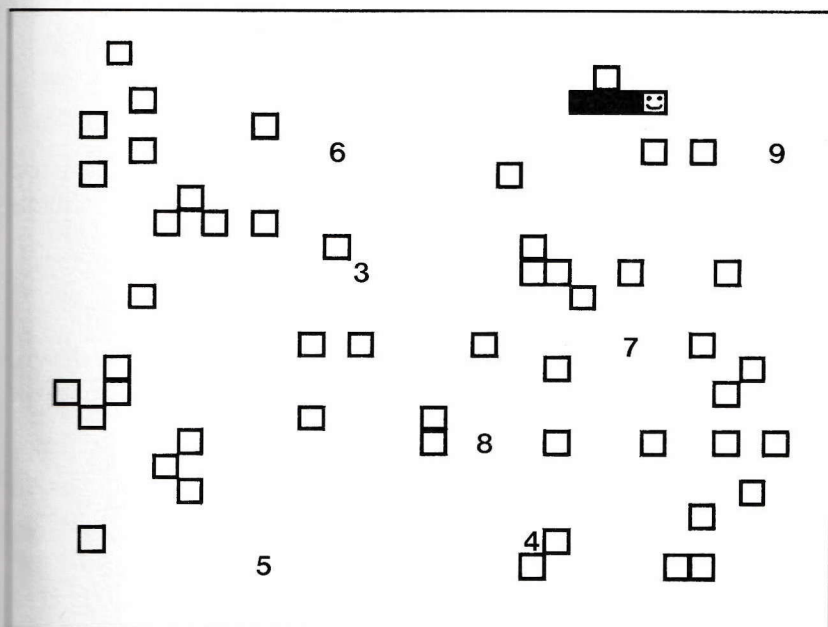
Description

You are a puny, insignificant and hungry little grass snake, which has been placed in an electrified enclosure. If you so much as touch the boundary or the red and yellow blocks scattered around, you will be sure to perish. In order to grow and become like your lifelong friend 'Pete the python', you must feed on the blue packages of food that are lying about the enclosure. These packages are clearly numbered from one to nine, and unless they are consumed in sequence, they will poison your system. If you succeed in eating all the packages, you will be transferred to a

more secure enclosure, in which you will find the food much more difficult to obtain!

Program

This program will easily fit into the 16K machine. It is also easy to enter, containing only a few user-defined graphics, which have been clearly marked in the program listing, as before.

Instructions

When the command 'RUN' is given, you will be placed in the top left-hand corner of the enclosure. You may then use the controls in order to move in search of the food packages.

Controls

The Q-Key is used to move up. The A-key is used to move down. The O-key is used to move to the left. The P-key is used to move to the right.

Note

By depressing any other key, you can 'hold' the game and burrow into the ground for temporary safety.

```
   1 GO SUB 9000: LET hs=0: LET h$="Me"
   5 BORDER 2: PAPER 7: CLS : INK 0
   7 INPUT ""
  10 LET len=3
  30 LET sc=0
  40 LET ml=10: LET mc=16
  50 LET d=50
  60 GO SUB 1000
  70 LET screens=0
 100 PRINT  INK 4;AT l,c;"a";AT l-l(1),c
-c(1);"b";AT y,x;" "
 105 BEEP .01,10
```

```
 110 FOR n=len TO 2 STEP -1: LET l(n)=l(
n-1): LET c(n)=c(n-1): NEXT n
 120 LET a$=CHR$ PEEK 23560
 130 LET l(1)=-1*(a$="q")+(a$="a")
 140 LET c(1)=-1*(a$="o")+(a$="p")
 150 LET l=l+l(1): LET c=c+c(1)
 160 LET y=y+l(len): LET x=x+c(len)
 170 IF l<0 OR l>21 OR c<0 OR c>31 OR AT
TR (l,c)=50 THEN  GO TO 500
 180 IF ATTR (l,c)=15 THEN  GO SUB 200
 190 GO TO 100
 200 LET q=VAL SCREEN$ (l,c): LET sc=sc+
q
 205 BEEP .01,30
 210 LET z=z+1: IF q<>z THEN  GO TO 500
 220 IF z=9 THEN  GO TO 300
 230 LET len=len+1: LET l(len)=l(len-1):
LET c(len)=c(len-1): LET y=y-l(len): LE
T x=x-c(len)
 240 RETURN
 300 LET len=3: LET sc=sc+100*screens: L
ET screens=screens+1: LET d=d+20: POKE 2
3659,1: PRINT AT 22,0; PAPER 6; FLASH 1;
"  BONUS! BONUS! BONUS! BONUS!   ": FOR
i=0 TO 60: BEEP .01,i: NEXT i: PRINT AT
22,0;"                               ":
POKE 23659,2: GO SUB 1000: RETURN
 500 BEEP .2,-10: BORDER 2: INPUT "": FO
R n=1 TO 200: BORDER 1: BORDER 1: BORDER
 1: BORDER 1: BORDER 2: BORDER 2: BORDER
 2: BORDER 2: NEXT n
 505 BORDER 2
 520 PAPER 2: CLS : INK 7
 530 PRINT ''''TAB 5;"You cleared ";scre
ens;" screens"''TAB 5;"and scored ";sc;"
points."
 540 IF sc>hs THEN  PRINT ''TAB 5;"The h
igh score was ";hs''TAB 5;"Held by ";h$'
'TAB 5;"But it is now ";sc;".": LET hs=s
```

```
c: INPUT "What is your name:"; LINE h$:
PRINT 'TAB 5;"Held by ";h$: GO TO 560
 550 PRINT ''TAB 5;"The high score is ";
hs''TAB 5;"Held by ";h$
 560 PRINT ''TAB 5;"Another game ?"
 570 IF INKEY$="y" THEN   GO TO 5
 580 IF INKEY$="n" THEN   STOP
 590 GO TO 570
1000 CLS : FOR n=1 TO d: BEEP .01,0: PRI
NT AT RND*21,RND*31; INK 2; PAPER 6;"c":
 NEXT n
1010 FOR n=1 TO 9
1015 BEEP .01,20: LET a=RND*20+1: LET b=
RND*30+1: IF SCREEN$ (a,b)<>" " THEN   GO
 TO 1015
1020 PRINT AT a,b; PAPER 1; INK 7;n: NEX
T n
1030 DIM l(12): DIM c(12)
1040 LET l=0: LET c=0: LET y=0: LET x=0
1050 LET z=0
1060 POKE 23560,32
1070 RETURN
9000 FOR n=0 TO 23: READ a: POKE USR "a"
+n,a: NEXT n
9010 DATA BIN 01111110,BIN 10000001,BIN
10100101,BIN 10000001,BIN 10100101,BIN 1
0111101,BIN 10000001,BIN 01111110
9020 DATA BIN 01111110,255,255,255,255,2
55,255,BIN 01111110
9030 DATA 255,255,BIN 11000011,BIN 11000
011,BIN 11000011,BIN 11000011,255,255
9040 RETURN
```

Chapter Three

Sub-hunt

```
SCORE = ØØØØØ ------- HI-SCORE = ØØØØØ
-------------- LIVES = 3 ----------------
```
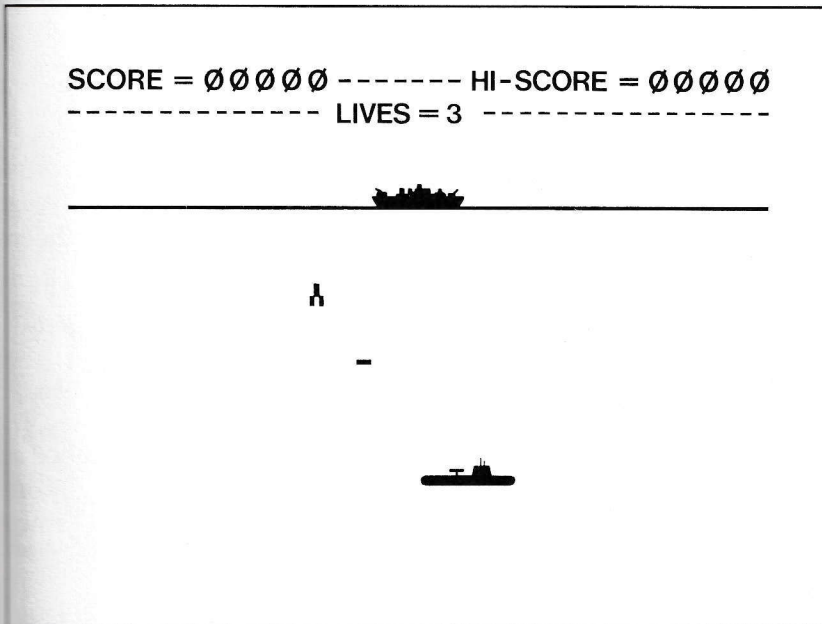
Description

You are the captain of the small anti-submarine cruiser 'HMS SPECTRUM', which has been ordered to seek out and destroy all enemy submarines in the seas surrounding your country. The ship is armed with two Mark II Sea Mortars, which are capable of throwing depth-charges both in front of and behind the ship. Due to the slowloading sequence, only one depth-charge can be fired from either mortar at any one time and this will automatically explode on contact with a submerged object or the sea-bottom. Unfortunately, the enemy submarines, which may be at

varying depths and travelling in either direction, are armed with sub-to-surface missiles, which when fired travel vertically upwards, exploding when they break the surface of the water.

As captain, you have three ships at your disposal, with which to sink as many enemy submarines as possible. The points you score for each kill will depend on the stage of the battle and the depth of the submarine destroyed. The game gets progressively more difficult, with the number of enemy ships and their firing rate increasing all the time.

Program

This program will easily fit into the 16K machine. The only difficulties likely to be encountered during the typing stage are in the lines that include user-defined graphics and these have been clearly marked in the program listing, as before.

Instructions

When the command 'RUN' is given, the game will commence at an easy level of play, but thereafter will get progressively more difficult. Watch out for submarines close to the surface, since these require extra-fast reactions and are generally lethal.

Controls

The 5-key moves the ship to the left. The 8-key moves the ship to the right. The 1-key fires the left-hand mortar. The 2-key fires the right-hand mortar.

```
  1 LET hi=0: GO SUB 7000
  5 PAPER 5: CLS
 10 LET c=14
 20 LET sub=0
 30 LET f1=0: LET f2=0
 40 PRINT AT 4,0;"_____fghi___
              "
 50 BORDER 2
```

```
  60 FOR n=5 TO 21
  70 PRINT AT n,0; PAPER 1;"
                            "
  80 NEXT n
  90 LET d=.9
 100 LET score=0
 110 PRINT AT 0,0; PAPER 2;"SCORE=00000-
------HI-SCORE=00000----------LIVES=3--
------------"
 120 LET subm=0
 130 LET lives=3
 140 PRINT  PAPER 2;AT 0,28+(hi<1000)+(h
i<100)+(hi<10);hi
 150 INPUT ""
1000 LET z$=CHR$ PEEK 23556
1010 IF z$="5" AND c>0 THEN  LET c=c-1:
PRINT AT 4,c;"fghi "
1020 IF z$="8" AND c<28 THEN  LET c=c+1:
 PRINT AT 4,c-1;" fghi"
1030 IF f1=1 THEN  GO SUB 2500
1040 IF f2=1 THEN  GO SUB 3500
1050 IF z$="1" AND f1=0 THEN  IF c>0 THE
N  GO SUB 2000
1060 IF z$="2" AND f2=0 THEN  IF c<28 TH
EN  GO SUB 3000
1070 IF sub=0 AND RND>d THEN  LET sub=1:
 GO SUB 4000: GO TO 1090
1080 IF sub=1 THEN  GO SUB 4500
1090 PRINT AT 0,7+(score<1000)+(score<10
0)+(score<10); PAPER 2;score
1100 IF sub=1 AND subm=0 AND RND>d THEN
 GO SUB 5000: GO TO 1120
1110 IF subm=1 THEN  GO SUB 5500
1120 IF lives=0 THEN  GO TO 9000
1130 GO TO 1000
2000 REM init f1
2010 LET f1=1
2020 LET l1=5
2030 LET c1=c-1
```

```
2500 REM f1
2510 LET l1=l1+1
2520 IF SCREEN$ (l1,c1)<>" " THEN  GO TO
 2700
2530 IF l1=21 THEN  GO TO 2900
2540 PRINT AT l1-1,c1; PAPER 1;" ";AT l1
,c1;"d"
2550 RETURN
2700 REM bang f1
2710 LET sub=0
2720 LET f1=0
2730 PRINT AT l1-1,c1; PAPER 1;" ";AT l1
,c1; PAPER 2; INK 6; FLASH 1;"e"
2740 FOR i=1 TO 10: NEXT i
2750 PRINT AT sl,sc; PAPER 1;"         "
2760 LET score=score+10*sl
2770 LET d=d-.05+.05*(d=0)
2780 RETURN
2900 REM boom f1
2910 PRINT AT l1-1,c1; PAPER 1;" ";AT l1
,c1; PAPER 2; INK 6; FLASH 1;"e"
2920 FOR i=1 TO 10: NEXT i
2930 PRINT AT l1,c1; PAPER 1;" "
2940 LET f1=0
2950 RETURN
3000 REM init f2
3010 LET f2=1
3020 LET l2=5
3030 LET c2=c+4
3500 REM f2
3510 LET l2=l2+1
3520 IF SCREEN$ (l2,c2)<>" " THEN  GO TO
 3700
3530 IF l2=21 THEN  GO TO 3900
3540 PRINT AT l2-1,c2; PAPER 1;" ";AT l2
,c2;"d"
3550 RETURN
3700 REM bang f2
3710 LET sub=0
```

```
3720 LET f2=0
3730 PRINT AT l2-1,c2; PAPER 1;" ";AT l2
,c2; PAPER 2; INK 6; FLASH 1;"e"
3740 FOR i=1 TO 10: NEXT i
3750 PRINT AT sl,sc; PAPER 1;"      "
3760 LET score=score+10*sl
3770 LET d=d-.05+.05*(d=0)
3780 RETURN
3900 REM boom f2
3910 PRINT AT l2-1,c2; PAPER 1;" ";AT l2
,c2; PAPER 2; INK 6; FLASH 1;"e"
3920 FOR i=1 TO 10: NEXT i
3930 PRINT AT l2,c2; PAPER 1;" "
3940 LET f2=0
3950 RETURN
4000 REM init sub
4010 LET sl=6+INT (RND*16)
4020 LET r=RND
4030 IF r>.5 THEN  LET sd=-1
4040 IF r<=.5 THEN  LET sd=1
4050 IF sd=-1 THEN  LET sc=28
4060 IF sd=1 THEN  LET sc=0
4070 LET sub=1
4500 REM sub
4510 IF (sc=1 AND sd=-1) OR (sc=27 AND s
d=1) THEN  GO TO 4700
4520 LET sc=sc+sd
4530 IF sd=1 THEN  PRINT AT sl,sc-1; PAP
ER 1;" rstu"
4540 IF sd=-1 THEN  PRINT AT sl,sc; PAPE
R 1;"rtsu "
4550 RETURN
4700 REM sub stop
4710 LET sub=0
4720 PRINT AT sl,sc; PAPER 1;"      "
4730 RETURN
5000 REM sub missile init
5010 LET sml=sl-1
5020 LET smc=sc+1
```

```
5030 LET subm=1
5500 REM sub missile
5510 LET sml=sml-1
5520 IF SCREEN$ (sml,smc)="" AND sml=4 T
HEN  GO TO 6500
5530 IF sml=4 THEN  GO TO 6000
5540 PRINT AT sml+1,smc; PAPER 1;" ";AT
sml,smc;"m"
5550 RETURN
6000 REM sub missile boom
6010 PRINT AT sml+1,smc; PAPER 2; INK 6;
 FLASH 1;"e"
6020 FOR i=1 TO 10: NEXT i
6030 PRINT AT sml+1,smc; PAPER 1;" "
6040 LET subm=0
6050 RETURN
6500 REM sub missile bang
6510 PRINT AT 4,c; PAPER 2; INK 6; FLASH
 1;"eeee"
6520 PRINT AT sml+1,smc; PAPER 1;" "
6530 FOR i=1 TO 30: NEXT i
6540 LET lives=lives-1
6560 PRINT AT 4,c;"fghi"
6570 PRINT AT 1,17; PAPER 2;lives
6580 LET subm=0
6590 RETURN
7000 REM characters
7010 RESTORE 7010: FOR n=1 TO 11: READ a
$: FOR m=0 TO 7: READ z: POKE USR a$+m,z
: NEXT m: NEXT n: RETURN
7020 DATA "d",0,0,0,60,60,0,0,0
7030 DATA "e",145,82,52,7,224,44,74,137
7040 DATA "f",0,64,60,28,255,127,63,255
7050 DATA "9",0,53,53,127,255,255,255,25
5
7060 DATA "h",128,241,251,255,255,255,25
5,255
7070 DATA "i",0,2,28,156,255,254,252,255
7080 DATA "m",0,24,24,24,24,24,36,36
```

```
7090 DATA "r",0,0,0,0,127,255,255,127
7100 DATA "s",0,0,62,8,255,255,255,255
7110 DATA "t",126,126,126,126,255,255,25
5,255
7120 DATA "u",0,0,0,0,254,255,255,254
9000 PRINT AT 10,10; FLASH 1; PAPER 1; I
NK 7;"YOU ARE DEAD!"
9010 IF score>hi THEN  LET hi=score: PRI
NT AT 12,10; INVERSE 1; FLASH 1; PAPER 1
; INK 7;"NEW HI-SCORE!"
9020 PRINT AT 14,8; PAPER 1; INK 7; FLAS
H 1;"ANOTHER GAME Y/N?"
9030 IF INKEY$="y" OR INKEY$="Y" THEN  G
O TO 5
9040 IF INKEY$="n" OR INKEY$="N" THEN  S
TOP
9050 GO TO 9030
```

Turtle Bridge

SCORE = ØØØØØ   LIVES = 2   HIGH = ØØØØØ
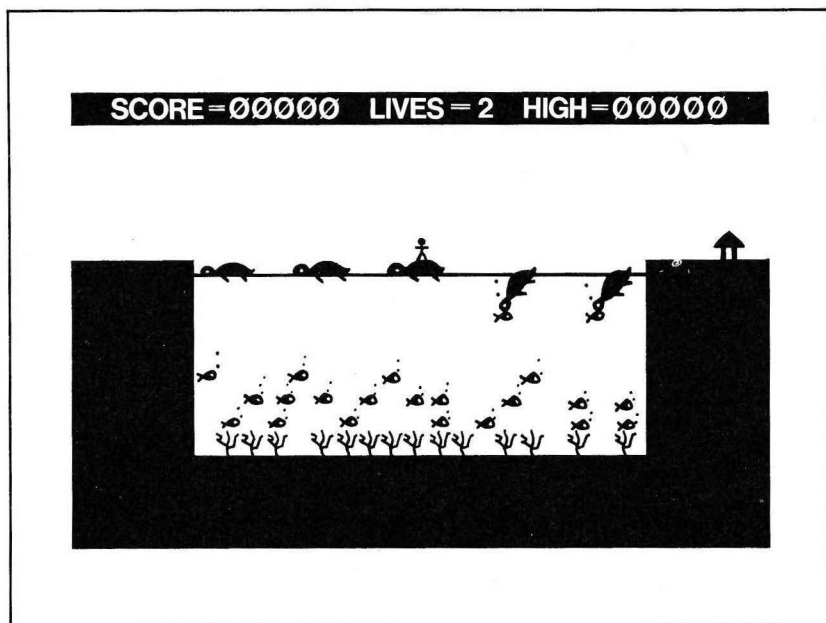
Description

In this game you are a man who is attempting to cross a deep and
treacherous river, in order to collect and carry back supplies that
have been left in the little red hut on the other side. To cross the
river, you must negotiate a 'Turtle Bridge', consisting of several
of the basking beauties, by leaping carefully from turtle to turtle.
Unfortunately for you, there is a shoal of red herrings in the
depths and the turtles are very fond of these. The herrings are
oblivious to the black shapes above because they are constantly
feeding on the green weed that grows profusely on the river-bed
— oblivious, that is, until they find themselves on the menu!

The object of the game is to cross the 'Turtle Bridge', making sure that the turtle on which you are standing does not dive for a red herring before you have jumped to the next turtle and, ultimately, to the opposite bank of the river. Upon your safe arrival, you should collect a package of supplies, which you must then transport back over the 'Turtle Bridge'. You will be given three lives with which to score as many points as possible, stacking up your packages as you go. Your score will be continually displayed in the top left-hand corner of the screen. Good luck, and remember: turtles are very fond of red herrings!

Program

In order to fit the game into the 16K machine, several memory-saving techniques have been employed. The principal technique has been the division of the game into two distinct programs (Turtle 1 and Turtle 2), both of which must be entered into the computer before the game becomes operational.

Turtle 1

This is the first program and should be typed in and then saved onto tape using the name "turtle1". It is easy to enter, containing the user-defined graphics and machine code used in the main program.

Turtle 2

This is the main game-playing program and should be typed in and saved under the name "turtle2". When entering this program, care should be taken to ensure that there are enough zeros (8 complete lines) in line 1 and that the user-defined graphics, clearly marked in the program listing, are entered correctly.

Instructions

When both programs have been entered and saved onto tape, you are ready to play 'Turtle Bridge'. First, load "turtle1", and then type 'RUN'. When the processing has been completed, "turtle2" will be automatically loaded into the computer.

Controls

The 5-key moves you to the left. The 8-key moves you to the right.

Note

You may not return to the left-hand bank of the river without a package of supplies, but you can get back to the right-hand bank at any time.

```
   1 REM 0000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
00000000000000000000000000000000000000000
0000000
  10 RESTORE 50: FOR n=USR "a" TO USR "u
"+7
  20 READ z
  30 POKE n,z
  40 NEXT n
  50 DATA 0,6,13,7,255,0,0,0
  60 DATA 7,15,31,191,255,16,8,0
  70 DATA 224,240,248,252,255,16,8,0
  80 DATA 0,0,0,0,255,3,5,7
  90 DATA 7,15,31,63,255,144,160,0
 100 DATA 224,240,248,252,255,16,32,0
 110 DATA 0,0,0,0,255,0,0,0
 120 DATA 112,112,168,112,255,33,83,139
 130 DATA 0,0,0,4,255,252,248,240
 140 DATA 3,3,1,7,1,1,2,4
 150 DATA 128,128,0,192,0,0,128,64
 160 DATA 128,190,42,254,42,62,128,64
 170 DATA 124,84,124,84,124,0,0,0
 180 DATA 3,135,7,7,70,24,45,56
 190 DATA 236,192,128,96,0,0,0,0
 200 DATA 144,81,138,74,50,20,24,16
```

```
210 DATA 0,0,0,0,255,1,3,3
220 DATA 1,0,1,0,12,90,60,64
230 DATA 0,64,0,128,0,128,0,0
240 DATA 2,24,180,120,128,0,0,0
250 DATA 24,60,126,255,102,102,102,102
260 FOR n=23790 TO 23989: READ z
280 POKE n,z
290 NEXT n
300 DATA 62,2,205,1,22,33,208,92,6,5,19
7,86,35,94,35,205,30,93,62,0,186,204,66,
93,62,2,186,204,82,93,62,1,186,204,112,9
3,62,3,186,204,128,93,193,5,194,248,92,2
01
310 DATA 6,11,75,12,205,174,93,62,32,21
5,62,32,215,4,205,174,93,62,32,215,4,205
,174,93,62,32,215,4,13,205,174,93,62,32,
215,201
320 DATA 6,10,75,205,174,93,62,144,215,
62,145,215,62,146,215,201
330 DATA 6,13,75,12,205,174,93,62,162,2
15,13,4,205,174,93,62,16,215,62,2,215,62
,161,215,62,16,215,62,0,215,6,10,75,205,
174,93,62,147,215,62,148,215,62,149,215,
201
340 DATA 6,10,75,205,174,93,62,150,215,
62,160,215,62,152,215,4,12,205,174,93,62
,157,215,62,158,215,4,205,174,93,62,16,2
15,62,2,215,62,163,215,62,16,215,62,0,21
5,201
350 DATA 62,22,215,120,215,121,215,201
360 CLEAR : PRINT AT 10,2; FLASH 1;"INS
ERT TURTLE 2 INTO CASSETTE";AT 12,5; INV
ERSE 1; FLASH 1;"RECORDER AND PRESS PLAY
": MERGE ""
```

Turtle 2

```
  5 LET hi=0
 10 LET hi=PI-PI
 20 CLS : PRINT  INK 6;AT 10,0;"▮▮▮▮";
INK 0;"9abc9abc9abc9abc9abc99"; INK 6;"
```

```
 ████ ": FOR n=1 TO 7: PRINT  INK 6;"████
█                        ████ ": NEXT n: F
OR n=1 TO 4: PRINT  INK 6;"████████████
███████████ ": NEXT n
  25 LET ii=INT PI
  30 DIM l(13): DIM c(13)
  40 RESTORE 40: FOR n=1 TO 13: READ l(n
),c(n): NEXT n
  50 DATA 9,3,7,5,9,7,7,9,9,11,7,13,9,15
,7,17,9,19,7,21,9,23,7,25,9,28
  60 DIM s(5)
  70 LET m$="jk": LET p=1
  80 BORDER PI/PI: PAPER 7: INK PI-PI
  85 INPUT ""
  90 LET sc=PI-PI
 100 LET box=PI-PI
 110 PRINT AT 0,0; INK 1; INVERSE 1;" SC
ORE=00000 LIVES=3 HIGH=00000 "
 120 FOR N=6 TO 25: PRINT AT 17,N; INK 4
;("p" AND RND>.5): NEXT N
 130 FOR n=6 TO 25: PRINT AT 14+RND*2,n;
 INK 2;"r": NEXT n
 140 PRINT AT 0,26+(hi<10000)+(hi<1000)+
(hi<100); INK 1; INVERSE 1;hi
 150 LET z=9
 160 LET y=0
 170 RESTORE 170: FOR n=23761 TO 23769 S
TEP 2: READ a: POKE n,a: NEXT n: DATA 6,
10,14,18,22
 180 PRINT AT 9,30; INK 2;"u"
 190 LET d=.9
 200 PRINT AT 0,7+(sc<10000)+(sc<1000)+(
sc<100); INK 1; INVERSE 1;sc
 210 LET a$=CHR$ PEEK 23556
 220 IF a$="5" AND (p>3 OR box=1) THEN
GO SUB 1000
 230 IF a$="8" AND p<12 THEN  GO SUB 200
0
```

```
 235 LET t=INT (c(p)/4): IF t<1 OR t>5 T
HEN  GO TO 240
 236 IF s(t)=3 THEN  GO TO 4000
 240 PRINT AT l(p),c(p);m$
 250 GO SUB 8000
 260 BEEP .003,0
 280 IF p=1 AND RND>d THEN  LET a$="8":
GO TO 230
 290 PRINT  INK 2;AT 15+RND,RND*18+6;" r

 300 GO TO 200
 310 REM
 320 REM
 330 REM
 340 REM
 350 REM
 360 REM
1000 PRINT AT l(p),c(p);"  ": LET p=p-1:
 BEEP .008,20
1020 PRINT AT l(p),c(p);m$
1030 GO SUB 8000
1040 PRINT AT l(p),c(p);"  "
1050 LET p=p-1: IF p=1 THEN  GO TO 3000
1060 RETURN
2000 PRINT AT l(p),c(p);"  ": LET p=p+1:
 BEEP .008,45
2020 PRINT AT l(p),c(p);m$
2030 GO SUB 8000
2040 PRINT AT l(p),c(p);"  "
2050 LET p=p+1: IF p=13 THEN  GO TO 3500
2060 RETURN
3000 PRINT AT z,y;"m": LET y=y+(z=1): LE
T z=z-1+9*(z=1): LET d=d-.02+.02*(d=0):
LET m$="jk": LET box=0: LET sc=sc+(1-d)*
100
3010 RETURN
3500 LET d=d-.02+.02*(d=0): BEEP .008,50
: LET m$="ji": LET box=1: LET sc=sc+10:
RETURN
```

```
4000 PRINT AT 10,c(p);"h";AT 9,c(p);("m"
 AND box=1);AT 9,c(p);"  ": BEEP .8,-10:
 LET li=li-1: IF li=0 THEN  GO TO 4020
4010 PRINT AT 0,19; INK 1; INVERSE 1;li:
 PRINT AT 9,c(p);"  ": LET p=1: LET m$="
jk": LET box=0: GO TO 200
4020 IF sc<=hi THEN  GO TO 4500
4030 CLS : PRINT AT 10,8; FLASH 1;"CONGR
ATULATIONS!";AT 12,3;"YOU'VE GOT THE HIG
H SCORE !"
4040 FOR x=-5 TO 69: BEEP .003,x: NEXT x
4050 LET hi=sc
4500 PAUSE 50: CLS : PRINT AT 10,8;"ANOT
HER GAME Y/N ?"
4510 IF INKEY$="y" THEN  GO TO 20
4520 IF INKEY$="n" THEN  PRINT AT 21,0;"
Bye bye !": STOP
4530 GO TO 4510
8000 FOR n=1 TO 5: IF s(n)=0 AND RND>.5
THEN  LET s(n)=1: GO TO 8040
8005 IF s(n)=0 THEN  GO TO 8040
8010 IF s(n)=1 AND RND>d THEN  LET s(n)=
2: GO TO 8040
8020 IF s(n)=1 THEN  LET s(n)=0: GO TO 8
040
8030 LET s(n)=s(n)+1: IF s(n)=4 THEN  LE
T s(n)=0
8040 NEXT n
9000 FOR n=1 TO 5: POKE 23760+(n-1)*2,s(
n): NEXT n: LET xx=USR 23790: RETURN
```

Madmax

Description

The year is AD 2000 and the state road into the city of Conurbia has been overrun by a strange group of inanimate objects, tired of being constantly polluted by the effects of cars. It is up to you to rid our planet of these evil creatures, and to help you in your campaign, the front of your car has been fitted with a reinforced tantalum bumper, capable of destroying anything with which it comes into contact.

In an attempt to halt your carnage of their species, the aliens will set up force-field road-blocks, which can only be breached at one particular point.

Remember at all times that your only protection is the tantalum bumper at the front of your car and that if you fail to destroy an alien, then he is certain to get you from behind!

Program

This program is relatively short and will easily fit into the 16K machine. As before, there are a number of user-defined graphics, clearly marked in the program listing, which must be entered with great care.

Instructions

The first and most important point is that the whole game must be played in the capitals mode, so before running the program, this mode should be set by typing 'CAPS LOCK'. When this has been done, type 'RUN' and use the following keys to control the sideways motion of your car.

Controls

The Z-key moves your car to the left. The C-key moves your car to
the right.

```
   1 LET HS=0: DIM F$(1): BORDER 0: PAPE
R 0: INK 7: CLS : GO SUB 3000: INPUT ; F
LASH 1;"INSTRUCTIONS"; FLASH 0;F$: IF F$
="Y" THEN  GO SUB 2000
   2 CLS : LET V=0
   3 LET F=14
   4 LET B=2
   5 LET A$="bdf h i jk l mn"
   6 LET B$=CHR$ 2+CHR$ 3+CHR$ 6+CHR$ 5+
CHR$ 4+CHR$ 5+CHR$ 6+CHR$ 4+CHR$ 6+CHR$
3+CHR$ 4+CHR$ 5+CHR$ 6
   7 LET M=0: LET S=0: LET X=15
  20 FOR K=0 TO 20: PRINT  INK 4;"
     d            d"; INK 4;"             "
  30 NEXT K
  50 FOR J=1 TO 13
  60 LET Z$=CHR$ 19+CHR$ 1+CHR$ 16+B$(J)
+A$(J)
  70 FOR Q=1 TO 10
  80 LET D$=INKEY$
  90 LET X=X+(D$="X" AND X<20)-(D$="Z" A
ND X>10)
 100 PRINT AT 21,X;" a "
 160 PRINT AT V,F; FLASH 1;Z$
 165 PRINT AT V-1,11;"
 170 LET V=V+1
 180 IF V=20 AND F=X+1 THEN  PRINT AT 20
,F;"e";AT 19,F;" ": LET S=S+J: LET V=INT
 (J/2): GO TO 1000
 195 IF V=22 AND M=1 THEN  IF X=N+7 THEN
  GO TO 1001
 200 IF V=22 THEN  GO TO 1100
 210 GO TO 80
 500 LET M=1: LET F=11: LET V$=Z$
```

```
 510 LET Z$=CHR$ 16+CHR$ 4+"mmmmmmmmmmm"
 520 LET N=INT (RND*9)+4: LET Z$(N)=" "
 530 LET M=1: GO TO 80
1000 POKE L,10: FOR H=20 TO 0 STEP -1: P
OKE T,H*J: POKE R,H*J: LET K=USR 32000:
NEXT H: PRINT AT 20,F;" ": LET F=INT (RN
D*9)+12
1001 PRINT  PAPER 4; INK 0;AT 2,1;"H.SCO
RE";AT 3,3;HS;AT 0,0;"SCORE=";S;AT 1,0;"
SHEET ";J;"=";A$(J);AT 0,24;"ALIEN ";Q;"
 "
1002 IF M=1 THEN  LET Z$=V$: LET M=0: LE
T V=0: LET F=11+INT (RND*10): PRINT AT 2
1,11;"            ": GO TO 180
1005 IF RND>.7 THEN  GO TO 500
1010 NEXT Q
1015 POKE L,10: FOR G=50 TO 0 STEP -1: P
OKE T,G: POKE R,G: LET Z=USR 32000: NEXT
 G: FOR G=1 TO 5: BEEP .1,20: NEXT G
1020 NEXT J
1040 PRINT '''''''"YOU HAVE COMPLETED Y
OUR MISSION.THE ROAD IS NOW OPEN........
....."
1045 POKE L,10: FOR F=100 TO 1 STEP -1:
POKE T,F: POKE R,0: LET Z=USR 32000: NEX
T F
1050 GO TO 1126
1100 POKE L,150: POKE T,0: POKE R,0: RAN
DOMIZE USR 32000: POKE L,10: FOR F=0 TO
100
1105 POKE T,F: POKE R,0: LET Z=USR 32000
1110 LET B=8-B
1120 PRINT AT 21,X; INK B; PAPER 8-B;" a
 "
1125 NEXT F
1126 IF S>HS THEN  PRINT AT 3,3; FLASH 1
; INK 4; PAPER 0;S;AT 10,11;"HIGH SCORE!
";AT 9,11;"eeeeeeeeeee";AT 11,11;"eeeee
eeeee": FOR G=0 TO 3: FOR F=0 TO 7: BEEP
```

```
 „01,G*F: NEXT F: NEXT G: LET HS=S
1130 IF INKEY$<>"" THEN   GO TO 1130
1140 IF INKEY$="" THEN   GO TO 1140
1150 GO TO 2
2000 LET M$="THE YEAR.....2000 A.D"+CHR$
 13+"THE STATE ROAD INTO CONURBIA   HAS
 BEEN OVERRUN BY A STRANGE    GROUP OF IN
ANIMATE OBJECTS TIREDOF CARS POLLUTING T
HE EARTH'S   ATMOSPHERE............
 . . . . ."
2010 LET M$=M$+"YOU MUST BUMP INTO THEM
AND      DESTROY THEM......EVERY SO OFTEN
YOU WILL COME     ACROSS ROAD    BLOCKS S
ET UP BY THE CREATURES   WITH ONLY ONE GA
P FOR YOU TO     GET THROUGH......KEYS ჲ.
. . . . . . . .""Ƨ"" MOVES LEFT.."" "C"" MOVES RI
GHT.MAY THE FORCE BE WITH YOU ჲ ჲ ჲ"
2020 POKE L,5: FOR U=1 TO LEN M$
2023 LET D=INT (U/100)+2: PRINT   BRIGHT
1; INK D;M$(U);: POKE T,D*4: POKE R,D*(I
NT (U/2)=U/2): LET Ƨ=USR 32000: NEXT U:
BORDER 0: PAUSE 0: CLS : RETURN
3000 FOR F=0 TO 111: READ A: POKE USR "A
"+F,A: NEXT F
3010 DATA 126,A,66,A,126,66,66,126,60,24
,A,A,A,A,A,A,0,0,3,15,63,15,3,0,170,85,1
70,85,170,85,170,85,150,45,91,204,10,221
,1,50,255,24,A,189
3020 DATA 189,A,126,60,0,60,66,64,78,66,
60,0,255,129,189,165,165,189,129,255,145
,82,52,31,248,44,74,137,16,56,16,124,16,
124,16,254,24,60,126,A,A,60,24,24
3030 DATA 1,3,7,15,31,63,127,255,31,55,1
15,241,143,206,252,248
3035 DATA 60,126,255,219,255,195,255,219
```

```
3040 FOR F=32000 TO 32021: READ A: POKE
F,A: NEXT F
3045 DATA 14,0,62,184,211,254,6,0,16,254
,62,8,211,254,6,0,16,254,13,32,237,201
3055 LET L=32001: LET T=32007: LET R=320
15
3060 RETURN
9999 POKE L,5: FOR F=50 TO 0 STEP -1: PO
KE T,F: POKE R,F: LET Z=USR 32000: NEXT
F: FOR F=1 TO 5: BEEP .1,20: NEXT F
```

Chapter Six
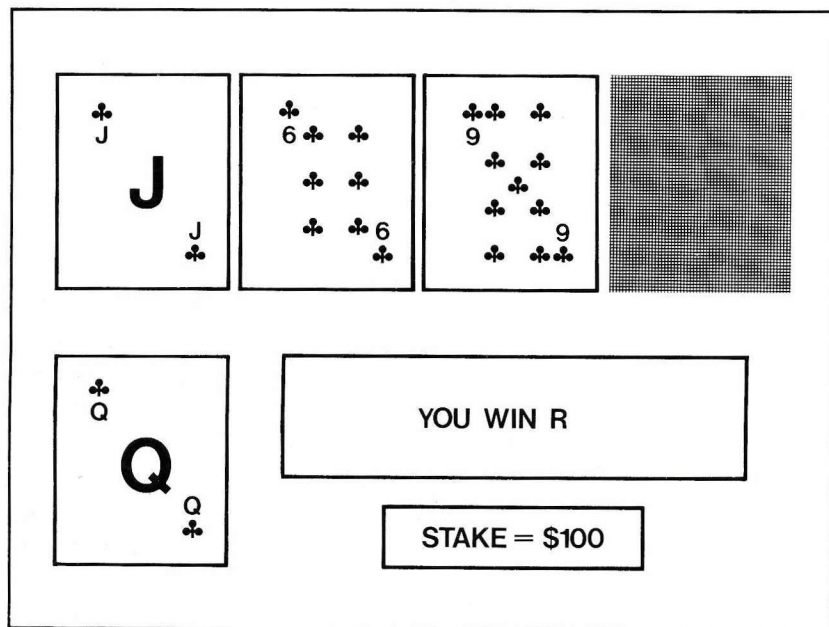
High and Low

Description

If you like a good game of cards and a little flutter without the worry of losing your shirt, then now is your chance to try to break the bank, without risking a single penny.

In this game of 'High and Low', the computer is the banker and will start the game by dealing five cards face down on the screen, having credited you with $100 with which to play. The object of the game is to progress along all five cards, stating whether the next one to be turned over will be higher or lower than the

previous one. At the start of each round you will be shown the first card and asked how much you would like to gamble. You must then forecast the next four cards correctly in order to double your initial stake. But remember, one incorrect guess and you lose the round and your stake. Just to make things a little worse, the computer has been given a slight advantage, in that when a pair occurs, it automatically wins the round.

Program

This program is quite long and takes up the whole of the memory of the 16K machine. There are also a number of user-defined graphics, clearly marked in the program listing, which must be entered with great care.

Instructions

When the command 'RUN' is given, the computer will deal five cards face down on the screen, after which there will be a short delay before the first card is turned over and you are requested to state the amount of your stake for the first round. Having done this, you must make your forecast as to whether the next card will be HIGHER or LOWER (H/L). If you are correct, the game will continue until you have correctly forecast the remaining three cards, at which time your stake will be adjusted and the next round will begin. If at any time during the round you make an incorrect guess, your stake will again be adjusted — this time downwards! — and the screen will be cleared for the next round.

Controls

The L-key is used to indicate lower. The H-key is used to indicate higher.

```
   1 BORDER 4: PAPER 4: CLS : INK 0: LET
 stake=100
   2 CLS : IF PEEK (USR "a"+3)<>0 THEN
GO SUB 9000
   3 DATA 12,0,0,0,0,8,0,16,0,24
   4 LET z=1: IF stake=0 THEN  GO TO 400
0
```

```
   5 RESTORE 3: LET e$="bebebeb"
   6 LET w$="YOU        WIN      ": LET l$="
BAD LUCK YOU LOSE"
   7 IF stake>1000 THEN  GO TO 5000
  10 FOR w=0 TO 27 STEP 8: FOR a=0 TO 8:
 PRINT AT a,w;e$: NEXT a: NEXT w
  20 FOR a=12 TO 20: PRINT AT a,0;e$: NE
XT a
  60 PLOT 75,80: DRAW 150,0: DRAW 0,-40:
 DRAW -150,0: DRAW 0,40
  71 PLOT 100,10: DRAW 0,20: DRAW 90,0:
DRAW 0,-20: DRAW -90,0
  72 PRINT AT 19,13;"STAKE=$";stake
 100 IF z=1 THEN  GO SUB 3000
 110 LET z=2
 200 GO TO 900
 600 REM !draw cards!
 605 READ v,h: LET e$="i
 610 PAPER 7: FOR i=0 TO 8: PRINT AT v+i
,h;e$: NEXT i
 630 LET f=CODE a$(c,3): LET f$=a$(c,4)
 640 INK VAL a$(c,5)
 650 PRINT AT v+1,h+1;f$;AT v+7,h+5;f$
 660 PRINT AT v+2,h+1;a$(c,3);AT v+6,h+5
;a$(c,3)
 670 IF f=55 OR f=56 OR f=57 OR f=151 TH
EN  PRINT AT v+1,h+2;f$;" ";f$;AT v+7,h+
2;f$;" ";f$
 680 IF f=52 OR f=53 OR f=54 THEN  PRINT
 AT v+2,h+2;f$;" ";f$;AT v+6,h+2;f$;" ";
f$
 690 IF f=151 OR f=50 OR f=51 THEN  PRIN
T AT v+2,h+3;f$;AT v+6,h+3;f$
 700 IF f=56 OR f=57 OR f=58 OR f=151 TH
EN  PRINT AT v+3,h+2;f$;" ";f$;AT v+5,h+
2;f$;" ";f$
 710 IF f=54 THEN  PRINT AT v+4,h+2;f$;"
 ";f$
 720 IF f=65 OR f=51 OR f=53 OR f=57 THE
```

```
N  PRINT AT u+4,h+3;f$
 730 IF f=55 THEN  PRINT AT u+3,h+3;f$;A
T u+5,h+2;f$;" ";f$
 740 IF f=74 THEN  PRINT AT u+3,h+4;" ";
AT u+4,h+2;"  ";AT u+5,h+2;"  "
 750 IF f=81 THEN  PRINT AT u+3,h+2;"
";AT u+4,h+2;"  ";AT u+5,h+2;"  ";AT u
+6,h+4;" "
 760 IF f=75 THEN  PRINT AT u+3,h+2;"
";AT u+4,h+2;"  ";AT u+5,h+2;"  "
 770 PAPER 4: INK 0
 776 RETURN
 900 GO SUB 600
1000 PRINT AT 14,11;"                    ";
AT 14,11;"PLACE YOUR BET"
1010 INPUT bet
1020 IF bet>stake THEN  GO TO 1010
1030 PRINT AT 14,11;"YOUR BET IS $";bet
1040 IF c=5 THEN  LET stake=stake+bet: G
O TO 2
1050 PRINT AT 14,11;"HIGHER OR LOWER   "
1060 INPUT h$
1061 IF h$="h" THEN  LET y$="HIGHER"
1062 IF h$="l" THEN  LET y$="LOWER"
1065 LET q=VAL a$(c,1 TO 2)
1066 LET q1=VAL a$(c+1,1 TO 2)
1067 IF q1>q THEN  LET c$="h"
1068 IF q1<q THEN  LET c$="l"
1069 IF q1=q THEN  LET c$="s"
1070 PRINT AT 14,11;"YOU CHOOSE ";y$
1075 PAUSE 100
1080 LET c=c+1: GO SUB 600
1090 IF c$=h$ THEN  PRINT AT 14,11;w$: P
AUSE 125: GO TO 1040
1095 PRINT AT 14,11;i$: PAUSE 125
2100 LET stake=stake-bet: GO TO 2
3000 REM !define cards!
3005 PRINT AT 14,13;"PLEASE WAIT"
3010 DIM a$(53,5)
```

```
3020 LET c=0
3040 LET s$="cdfg"
3060 LET d$="14A022033040550660770880 99
10h11J12Q13K"
3070 FOR s=1 TO 4
3080 LET a=2
3090 IF s=1 OR s=4 THEN  LET a=0
3100 FOR n=1 TO 13
3110 LET c=c+1
3120 LET a$(c)=d$(n*3-2 TO n*3)+s$(s)+ST
R$ a
3130 NEXT n: NEXT s
3200 REM ?random choice of card?
3210 FOR c=53 TO 2 STEP -1
3220 BEEP .01,c
3230 LET a=(52-(RND*8))+1
3240 LET a$(c)=a$(a): LET a$(a)=a$(c-1)
3250 NEXT c
3260 FOR c=2 TO 53
3270 BEEP .02,c
3280 LET a$(c-1)=a$(c)
3290 NEXT c
3300 LET c=1
3310 RETURN
4000 BORDER 1: PAPER 1: CLS : INK 7
4010 PRINT AT 10,4;"You lost all your mo
ney??"
4020 PRINT AT 15,8;"Another game (y/n)"
4030 INPUT b$
4040 IF b$="y" THEN  RUN
4050 STOP
5000 LET d=0: LET b=175: FOR a=255 TO 15
0 STEP -10
5005 BEEP 0.1,a-200
5006 BORDER RND*6
5010 PLOT d,d: DRAW a,0: DRAW 0,b: DRAW
-a,0: DRAW 0,-b
5020 LET d=d+2: LET b=b-10: NEXT a
5030 PRINT AT 15,4;"YOU BUST THE BANK"
```

```
5040 PAUSE 50: GO TO 4000
5100 STOP
9000 RESTORE 9040
9010 FOR f=USR "a" TO USR "i"+7
9020 READ a
9030 POKE f,a
9035 NEXT f
9040 DATA 0,0,0,0,0,0,0,0
9045 DATA 170,85,170,85,170,85,170,85
9050 DATA 0,56,56,16,214,254,214,16
9060 DATA 0,16,56,124,254,254,214,16
9065 DATA 170,170,85,85,170,170,85,85
9070 DATA 0,108,254,254,124,124,56,16
9080 DATA 0,16,56,124,254,254,214,16
9090 DATA 152,164,164,164,164,164,164,15
2
9100 DATA 128,128,128,128,128,128,128,12
8
9110 RETURN
```

Dropout

Description

A new and exciting game of skill and logic, requiring a quick brain and even quicker reflexes. Similar to 'Breakout', you will find this game easy to play, hard to play well and virtually impossible to master.

You are faced with two multi-layer walls, situated at the top and bottom of the screen, and a ball in the centre. The object of the game is to clear all the bricks by deflecting the ball from one wall to the other. You are given complete control over the sideways motion of the ball by using keys 1 to 9. However, this only simplifies matters slightly, since the walls are generated randomly and you cannot therefore assume that the number of bricks in both walls is the same.

If a ball goes off the top or bottom of the screen, you automatically lose that ball. If, however, a ball goes off the screen to one side, you lose a fraction of your total score and the ball can be brought back into play by using an appropriate direction key (1 to 9).

Program

This program will easily fit into the 16K machine. As before, there are some user-defined graphics, clearly marked in the program listing, which must be entered with great care.

Instructions

When the command 'RUN' is given, the computer will request you to enter the game speed on a scale of 0–9 (0 = fast, 9 = slow) and the number of balls per game (1–6). After you have entered

these values, the playing area will be set up and the game will commence.

Controls

The 5-key moves the ball vertically. Keys 1–4 move the ball to the left. Keys 6–9 move the ball to the right.

Note

The use of key-1 or key-9 will cause considerable sideways motion of the ball and could, without care, result in the loss of your score.

```
   1 GO SUB 2000
   2 PAPER 7
   3 BORDER 7
   4 INK 7
   5 BRIGHT 1
   6 CLS
  10 GO SUB 1000
  20 LET x=15: LET y=10: LET ay=-1: LET
ax=0
  30 LET fy=y: LET fx=x: PRINT AT y,x; I
NK 0;"b"
  35 FOR f=0 TO gs*3: NEXT f
  40 LET a$=INKEY$: IF a$>"0" AND a$<":"
 THEN   LET ax=CODE a$-53
  45 LET x=x+ax
  50 LET y=y+ay
  55 PRINT AT fy,fx; INK 7;" "
  60 IF y=0 OR y=20 THEN   LET b=b-1: PRI
NT AT 21,25; BRIGHT 0;b: FOR z=1 TO 5: R
EAD a,c: BEEP a,c: NEXT z: IF b<>0 THEN
 RESTORE 9060: GO TO 20
  65 IF b=0 THEN   GO TO 500
  70 IF x<0 OR x>31 THEN   GO SUB 150
  90 IF ATTR (y,x)<>127 THEN   GO SUB 110
 100 GO TO 30
 110 LET ay=ay*-1
```

```
 111 LET sc=sc+(ATTR (y,x)-127)*-1: PRIN
T AT 21,11; BRIGHT 0;sc
 115 INK 2: PRINT AT y,x;"*";: BEEP .01,
10: PRINT AT y,x;"+";: BEEP .01,5: PRINT
 AT y,x;"c";: BEEP .01,0: PRINT AT y,x;
INK 7;" "
 116 IF sc/1000=INT (sc/1000) THEN  LET
b=b+1: PRINT AT 21,25; BRIGHT 0;b
 117 IF (sc+tot)/1260=INT ((sc+tot)/1260
) THEN  GO TO 2
 120 INK 0
 125 RETURN
 150 IF x<0 THEN  LET x=1
 155 IF x>31 THEN  LET x=30
 160 PRINT AT 10,2;"Bad luck you have ju
st lost       1/5'th of your points"
 161 LET sr=sc
 165 LET sc=sc-INT (sc/5)
 166 LET tot=tot+sr-sc
 167 BEEP .1,12: BEEP .1,9
 170 PRINT AT 21,11; BRIGHT 0;sc;"    "
 171 IF INKEY$<>"" THEN  GO TO 171
 172 IF INKEY$="" THEN  GO TO 172
 175 PRINT AT 10,0; INK 7;"


 180 RETURN
 500 PRINT AT 10,12; FLASH 1; PAPER 0; I
NK 6;"Game over": FOR f=1 TO 11: READ a,
c: BEEP a,c: NEXT f
 505 PRINT AT 10,12;"                   "
 510 IF sc<=hs THEN  GO TO 520
 515 LET gs=gs-1: LET hs=sc: PRINT AT 0,
7; BRIGHT 1; FLASH 1; PAPER 0; INK 6;"Ne
w High Score : ";hs: FOR g=1 TO 3: FOR f
=0 TO 25: BEEP .02,f: NEXT f: NEXT g
 517 IF gs=-1 THEN  LET gs=0
 520 RESTORE 9060: LET tot=0: CLS : LET
b=ba: LET sc=0: GO TO 2
1000 LET d=1: INK 0
```

```
1010 FOR y=2 TO 18
1020 FOR x=1 TO 30
1025 IF y>7 AND y<13 THEN  LET d=6: NEXT
 y
1030 IF INT (RND*5)=1 THEN  LET tot=tot+
1: GO TO 1050
1045 PRINT AT y,x; INK d; "a"
1050 NEXT x
1056 LET d=d+1
1057 IF y>12 THEN  LET d=d-2
1060 NEXT y
1070 PRINT AT 20,0; BRIGHT 0;
                       ";"      Score:0
    Balls:";b;"            "
1075 PRINT AT 0,0; BRIGHT 0;"
                      ";AT 0,8; INK 0;"Hi
gh Score:";hs
1080 RETURN
2000 BORDER 0: PAPER 0: INK 6: BRIGHT 0:
 CLS
2010 POKE 23692,255
2015 BORDER 0: PAPER 0: INK 6
2020 FOR f=1 TO 6: FOR g=1 TO 7
2030 INK g: BEEP .03,g: NEXT g: NEXT f
2040 INK 6
2045 PRINT '''''''''''''''''''''''''''
2050 PRINT "           Rules";AT 21,10; O
VER 1;"        "'''
2052 PRINT "In this game you control a b
all": PAUSE 75
2053 PRINT '"which knocks out bricks fro
m a ": PAUSE 75
2054 PRINT '"couple of walls.": PAUSE 75
2055 PRINT '"The ball bounces vertically
 ": PAUSE 75
2056 PRINT '"between the two walls, whil
e you": PAUSE 75
2057 PRINT '"control the horizontal move
ment.": PAUSE 75
```

```
2058 PRINT '"The keys you use are keys "
: PAUSE 75
2059 PRINT '"'1' [moves ball to the far
left]": PAUSE 75
2060 PRINT '"ranging to '9' [moves ball
to ": PAUSE 75
2061 PRINT '"the far right].": PAUSE 50
2062 PRINT '''"The deeper the colour of
the ": PAUSE 75
2063 PRINT '"brick the more points you g
et ": PAUSE 75
2066 PRINT '"for it [ie. a yellow brick
is ": PAUSE 75
2067 PRINT '"worth 1 point, whereas a bl
ue ": PAUSE 75
2068 PRINT '"brick is worth 7 points].":
 PAUSE 75
2069 PRINT '''"      G O O D   L U C K"
· PAUSE 200
2070 PRINT ''''''''''''''''''''''''''''''
''''
2090 INPUT "Game speed [ 0-fast,9-slow ]
  ;gs
2091 IF gs<0 OR gs>9 THEN  GO TO 2090
2095 INPUT "Number of balls [ between
    1 and 6 ] ";b
2096 IF b<1 OR b>6 THEN  GO TO 2095
2097 LET ba=b
2100 LET hs=0: LET sc=0: LET tot=0
9000 FOR x=0 TO 23
9010 READ a: POKE USR "a"+x,a
9020 NEXT x
9030 DATA 0,127,127,127,127,127,127,127
9035 DATA 0,0,28,62,62,62,28,0
9040 DATA 0,0,0,24,24,0,0,0
9050 RETURN
9060 DATA .2,5,.15,2,.05,8,.2,5,.2,2
9070 DATA .35,-1,.3,-1,.1,-1,.4,-1,.25,2
,.15,1,.25,1,.15,-1,.25,-1,.15,-2,.25,-1
```

Chapter Eight

Shoot the Moon

Description

You are stranded on a strange planet in the far-off reaches of the universe and your only source of food is the peculiar variety of duck that inhabits this otherwise deserted land. This species of duck has evolved over aeons of time so that it will now fly only under conditions of total darkness. Although abundant, these ducks are seldom to be seen, owing to the existence of a Sun and Moon that have the uncanny knack of appearing at irregular intervals, to spread light over this otherwise dark domain and send the ducks scurrying back to the safety of their unreachable habitat in the deep, inner recesses of the planet's core. To combat these problems you are armed with a single-shot Mega-beta rifle, which is capable of both killing the ducks and extinguishing the light from the Sun or Moon for a short time.

In this forbidding environment you can only survive for a short time without the sustenance to be gained from eating vast quantities of high-protein duck. So you will have to kill a lot of ducks if you are to survive for long! Good duck and bon appétit!

Program

This program will easily fit into the 16K machine. As before, there are some user-defined graphics, clearly marked in the program listing, which must be entered with great care.

Instructions

When the command 'RUN' is given, the game will commence and you will have a life expectancy of twenty-five planetary days. This

can be extended by an additional five days for every five ducks consumed.

Controls

The 5-key moves you to the left. The 8-key moves you to the right. The 0-key fires the single-shot rifle.

```
 1 LET m=0
 2 LET sun=31
 3 LET moon=31
 4 LET duck=31
 5 LET sc=0
 6 LET go=0
 7 LET su=0: LET mo=0: LET du=0
10 CLS
11 FOR i=1 TO 5
12 READ a$
13 FOR j=0 TO 7
14 READ a
15 POKE USR a$+j,a
16 NEXT j
17 NEXT i
18 DATA "a",56,56,56,16,64,16,40,40,"b
",60,126,255,255,255,255,126,60,"c",16,2
4,28,30,30,28,24,16
19 DATA "d",14,15,62,124,248,120,32,48
,"f",24,24,24,24,24,24,60,60
20 PAPER 1
30 CLS
40 FOR i=0 TO 31
50 PRINT AT 18,i; INK 4;"█"
51 PRINT AT 20,i; INK 7;"█"
52 PRINT AT 19,i; INK 7;"█"
53 PRINT AT 21,i; INK 7;"█"
60 NEXT i
65 PAPER 7
70 PRINT AT 19,0;"DUCKS"
80 PRINT AT 20,0;"SUNS"
90 PRINT AT 21,0;"MOONS"
```

```
  95 PRINT AT 17,15; PAPER 1; INK 7;"a"
 100 LET m$="a"
 110 LET xm=15: LET ym=17
 120 LET s$="b"
 130 LET n$="c"
 135 LET d$="d"
 136 LET e$="f"
 140 LET r=INT (RND*3)
 150 IF r=0 THEN  LET xd=INT (RND*14)
 160 LET x=INT (RND*32): LET y=INT (RND*
14)
 170 LET go=go+1
 171 IF go=20 THEN  GO TO 5000
 179 GO SUB 900
 180 GO TO 140
 900 IF r=1 THEN  PRINT AT y,x; PAPER 1;
 INK 6;s$
 910 IF r=2 THEN  PRINT AT y,x; PAPER 1;
 INK 6;n$
 920 IF R=0 THEN  GO TO 1500
1000 LET i=INT (RND*200)
1010 FOR j=1 TO i
1015 IF INKEY$="" THEN  GO TO 1070
1020 IF INKEY$="5" THEN  LET m=-1
1025 IF INKEY$="8" THEN  LET m=1
1030 IF INKEY$="0" THEN  GO TO 2000
1040 PRINT AT ym,xm; PAPER 1; INK 1;"█"
1050 LET xm=xm+m: LET m=0
1051 IF xm<0 THEN  LET xm=0
1052 IF xm>31 THEN  LET xm=31
1060 PRINT AT ym,xm; PAPER 1; INK 7;"a"
1070 NEXT j
1075 PRINT AT y,x; PAPER 1; INK 1;"█"
1080 RETURN
1500 FOR l=0 TO 31
1505 PRINT AT xd,l-1; PAPER 1; INK 1;"█"
1510 PRINT AT xd,l; PAPER 1; INK 7;d$
1520 IF INKEY$="" THEN  GO TO 1590
1530 IF INKEY$="5" THEN  LET m=-1
```

```
1540 IF INKEY$="8" THEN  LET m=1
1550 IF INKEY$="0" THEN  GO TO 2000
1560 PRINT AT ym,xm; PAPER 1; INK 1;"█"
1570 LET xm=xm+m: LET m=0
1580 PRINT AT ym,xm; PAPER 1; INK 7;"a̲"
1590 NEXT l
1595 PRINT AT xd,l-1; PAPER 1; INK 1;"█"
1600 RETURN
2000 FOR z=16 TO 0 STEP -1
2004 IF ATTR (z,xm)>9 THEN  GO TO 3000
2005 PRINT AT z,xm; PAPER 1; INK 7;e$
2010 PRINT AT z,xm; PAPER 1; INK 1;"█"
2020 NEXT z
2025 IF r=0 THEN  GO TO 1590
2030 GO TO 1035
3000 IF r=1 THEN  GO TO 3100
3010 IF r=2 THEN  GO TO 3200
3020 IF r=0 THEN  GO TO 3300
3100 PRINT AT z,xm; PAPER 1; INK 1;"█"
3101 FOR y=10 TO sun
3110 PRINT AT 20,y; INK 2;s$
3120 PRINT AT 20,y; INK 7;" "
3130 NEXT y
3140 PRINT AT 20,sun; INK 2;s$
3150 LET sun=sun-1
3155 LET sc=sc+10
3156 LET su=su+1
3160 GO TO 140
3200 PRINT AT z,xm; PAPER 1; INK 1;"█"
3201 FOR y=10 TO moon
3210 PRINT AT 21,y; INK 2;n$
3220 PRINT AT 21,y; INK 7;" "
3230 NEXT y
3240 PRINT AT 21,moon; INK 2;n$
3250 LET moon=moon-1
3255 LET sc=sc+15
3256 LET mo=mo+1
3260 GO TO 140
3300 PRINT AT z,xm; PAPER 1; INK 1;"█"
```

```
3301 FOR y=10 TO duck
3310 PRINT AT 19,y; INK 2;d$
3320 PRINT AT 19,y; INK 7;" "
3330 NEXT y
3340 PRINT AT 19,duck; INK 2;d$
3350 LET duck=duck-1
3355 LET sc=sc+25
3356 LET du=du+1
3360 GO TO 140
5000 CLS
5010 PRINT TAB (10);"YOU HORRIBLE BEAST"
5020 PRINT TAB (10);"YOU HIT"
5030 PRINT TAB (10);du;" DUCKS"
5040 PRINT TAB (10);su;" SUNS"
5050 PRINT TAB (10);mo;" MOONS"
5060 PRINT ""
5070 PRINT "TOTAL SCORE=";sc
5080 PRINT ""
5090 PRINT ""
5100 PRINT "DO YOU WANT ANOTHER GO y/n"
5110 INPUT a$
5120 IF a$="y" THEN  GO TO 20
5130 STOP
```

Chapter Nine

Matrix Core

**FACING
WEST**

↑
7
< 5   6 >

M = MAP
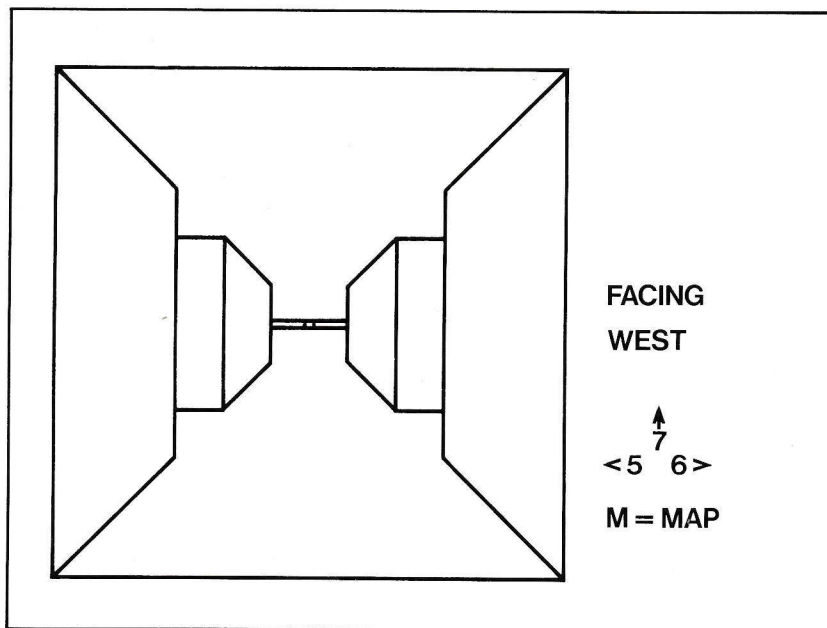
Description

You have been placed in the three-dimensional matrix core of the Spectrum's memory, from which you must attempt to escape. The memory map, controlled by the computer, is available for inspection on only three occasions, so choose your times wisely.

During the game, you are given a three-dimensional view of the matrix core in front of you, with passages leading off to the left and right clearly shown. The central processing unit will try to confuse you in your bid to escape by making the exit appear as a dead-end until you actually pass through it, at which time the matrix core will explode into a myriad of colours and sounds.

Program

This program will just fit into the 16K machine, with only a few bytes to spare. It is clear and easy to enter, since it employs high-resolution graphics rather than the user-defined graphics found in the other programs.

Instructions

When the command 'RUN' is given, the computer will request you to enter the level of difficulty that you require for the construction of the matrix core on a scale of 1–10 (1 = easy, 10 = difficult). After you have entered this, the matrix core will be constructed visually on the screen, after which you will be placed somewhere inside and the fun will begin!

Controls

The 7-key moves you one step forward. The 5-key rotates you 90 degrees anticlockwise. The 8-key rotates you 90 degrees clockwise. The M-key prints the memory map on the screen.

Note

When the memory map has been displayed on the screen, depressing any key will return to the three-dimensional view of the matrix core.

```
   1 RESTORE 1: FOR n=0 TO 18: READ m: P
OKE USR "a"+n,m: NEXT n: DATA 33,0,88,6,
24,14,32,52,13,35,194,95,127,5,194,93,12
7,201
   5 LET MAP=3: PAPER 1: INK 7: BORDER 1
: CLS : DIM M$(704): LET WALL=0
   6 INPUT "Difficulty level (1-10) ";d:
 LET d=d/10
  10 LET l=20: LET c=16: LET ld=-1: LET
cd=0
  20 PRINT AT l,c;"■"
  25 LET m$(l*32+c+1)="■"
```

```
  30 LET l=l+ld: LET c=c+cd
  45 IF RND>d THEN  GO TO 120
  50 IF INT (l/2)<>l/2 OR INT (c/2)<>c/2
THEN  GO TO 120
  60 LET r=INT (RND*4)
  70 LET LD=(R=2)-(R=3): LET CD=(R=0)-(R
=1)
  80 BEEP .01,RND*50
 120 IF l=0 THEN  GO TO 160
 130 IF L+LD>20 THEN  LET LD=-LD
 140 IF C+CD<1 OR C+CD>30 THEN  LET CD=-
CD
 150 GO TO 20
 160 LET E=C
1000 RESTORE 1000: DIM D(6): FOR N=1 TO
6: READ D(N): NEXT N: DATA 22,19,17,15,1
3,12
1010 RESTORE 1020: DIM p(6): DIM c(4,6,2
): FOR m=1 TO 4: FOR n=1 TO 6: READ c(m,
n,1): READ c(m,n,2): NEXT n: NEXT m
1020 DATA 0,0,22,22,41,41,58,58,73,73,86
,86
1030 DATA 0,174,22,152,41,133,58,116,73,
101,86,88
1040 DATA 174,174,152,152,133,133,116,11
6,101,101,88,88
1050 DATA 174,0,152,22,133,41,116,58,101
,73,88,86
1060 LET l=20: LET c=16: LET ld=-1: LET
cd=0
2000 FOR N=1 TO 6
2010 LET A=l*32+c+1+(32*N*LD)+(N*CD)
2020 IF (L+N>20 AND LD=1) OR (L-N<1 AND
LD=-1) OR (C-1<1 AND CD=-1) OR (C+1>31 A
ND CD=1) THEN  GO TO 2030
2021 IF CD=1 AND LD=0 THEN  LET P(N)=(M$
(A-32)="■")+2*(M$(A+32)="■")+4*(M$(A)="
")
2022 IF CD=-1 AND LD=0 THEN  LET P(N)=(M
```

```
$(A+32)="■")+2*(M$(A-32)="■")+4*(M$(A)="
  ")
2023 IF CD=0 AND LD=1 THEN  LET P(N)=(M$
(A+1)="■")+2*(M$(A-1)="■")+4*(M$(A)=" ")
2024 IF CD=0 AND LD=-1 THEN  LET P(N)=(M
$(A-1)="■")+2*(M$(A+1)="■")+4*(M$(A)="  "
)
2025 IF P(N)>4 THEN  LET P(N)=4: GO TO 2
030
2026 NEXT N
2030 GO SUB 9000
2040 IF C=E AND L=1 AND LD=-1 THEN  GO T
O 3000
2045 PRINT AT 9,23;"FACING";AT 11,23;("N
ORTH" AND LD=-1 AND CD=0)+("SOUTH" AND L
D=1 AND CD=0)+("EAST " AND LD=0 AND CD=1
)+("WEST " AND LD=0 AND CD=-1)
2059 PRINT AT 15,23;" ^";AT 16,23;"  7"
;AT 17,23;"<5 8>";AT 19,23;" M=MAP"
2060 PAUSE 0: LET Z$=INKEY$
2061 IF Z$="m" AND MAP>0 THEN  BEEP .2,6
0: CLS : LET MAP=MAP-1: PRINT M$: PRINT
AT L,C; FLASH 1; PAPER 2;"+"; INVERSE 1;
AT 0,e;"E": PAUSE 0: CLS : GO TO 2000
2062 BEEP .02,RND*30
2065 IF Z$="7" AND P(1)=4 THEN  PRINT AT
 0,23; FLASH 1; INK 2; PAPER 6;"DEAD END
!": BEEP .2,10: PAUSE 100: PRINT AT 0,23
;"             ": GO TO 2060
2070 IF Z$="7" THEN  LET L=L+LD: LET C=C
+CD: LET P(1)=P(2): LET P(2)=P(3): LET P
(3)=P(4): LET P(4)=P(5): LET P(5)=P(6):
FOR N=6 TO 6: GO TO 2010
2080 IF z$="5" AND ld=-1 AND cd=0 THEN
LET ld=0: LET cd=-1: GO TO 2000
2090 IF z$="5" AND ld=1 AND cd=0 THEN  L
ET ld=0: LET cd=1: GO TO 2000
2100 IF z$="5" AND ld=0 AND cd=-1 THEN
LET ld=1: LET cd=0: GO TO 2000
```

```
2110 IF z$="5" AND ld=0 AND cd=1 THEN   L
ET ld=-1: LET cd=0: GO TO 2000
2120 IF z$="8" AND ld=-1 AND cd=0 THEN
LET ld=0: LET cd=1: GO TO 2000
2130 IF z$="8" AND ld=1 AND cd=0 THEN   L
ET ld=0: LET cd=-1: GO TO 2000
2140 IF z$="8" AND ld=0 AND cd=1 THEN   L
ET ld=1: LET cd=0: GO TO 2000
2150 IF z$="8" AND ld=0 AND cd=-1 THEN
LET ld=-1: LET cd=0: GO TO 2000
2160 GO TO 2060
3000 CLS : PRINT AT 10,8;"CONGRATULATION
S!": FOR n=1 TO 300: BORDER RND*7: BEEP
.002,n/5: LET l=USR USR "a": NEXT n
3020 CLS : BORDER 1
3030 DIM a$(1): INPUT "Another game ?";
LINE a$: IF a$="y" THEN   RUN
3040 IF a$="n" THEN   STOP
3050 GO TO 3030
9000 CLS : PLOT 0,0: DRAW 0,174: DRAW 17
4,0: DRAW 0,-174: DRAW -174,0: FOR n=1 T
O 5
9010 FOR m=1 TO 4
9015 IF p(n)=4 THEN   LET wall=n: GO TO 9
060
9020 PLOT c(m,n,1),c(m,n,2)
9040 IF (m<3 AND (p(n)=0 OR p(n)=2)) OR
(m>2 AND (p(n)=0 OR p(n)=1)) THEN   DRAW
c(m,n+1,1)-c(m,n,1),c(m,n+1,2)-c(m,n,2)
9045 NEXT m
9050 NEXT n
9060 FOR n=1 TO 6
9065 IF wall=n THEN   GO TO 9110
9066 IF N=6 THEN   GO TO 9090
9070 IF p(n)=1 OR p(n)=3 THEN   PLOT c(2,
n,1),c(2,n,2): DRAW 0,c(1,n,2)-c(2,n,2):
 PLOT c(2,n+1,1)-D(N),c(2,n+1,2): DRAW D
(N),0: DRAW 0,c(1,n+1,2)-c(2,n+1,2): DRA
W -D(N),0
```

```
9080 IF p(n)=2 OR p(n)=3 THEN  PLOT c(3,
n,1),c(3,n,2): DRAW 0,c(4,n,2)-c(3,n,2):
 PLOT c(3,n+1,1)+D(N),c(4,n+1,2): DRAW -
D(N),0: DRAW 0,c(3,n+1,2)-c(4,n+1,2): DR
AW D(N),0
9090 NEXT n
9100 RETURN
9110 LET n=wall: LET wall=0: PLOT c(1,n,
1),c(1,n,2): DRAW 0,c(2,n,2)-c(1,n,2): D
RAW c(3,n,1)-c(2,n,1),0: DRAW 0,c(4,n,2)
-c(3,n,2): DRAW c(1,n,1)-c(4,n,1),0: RET
URN
```

Chapter Ten

City Bomber
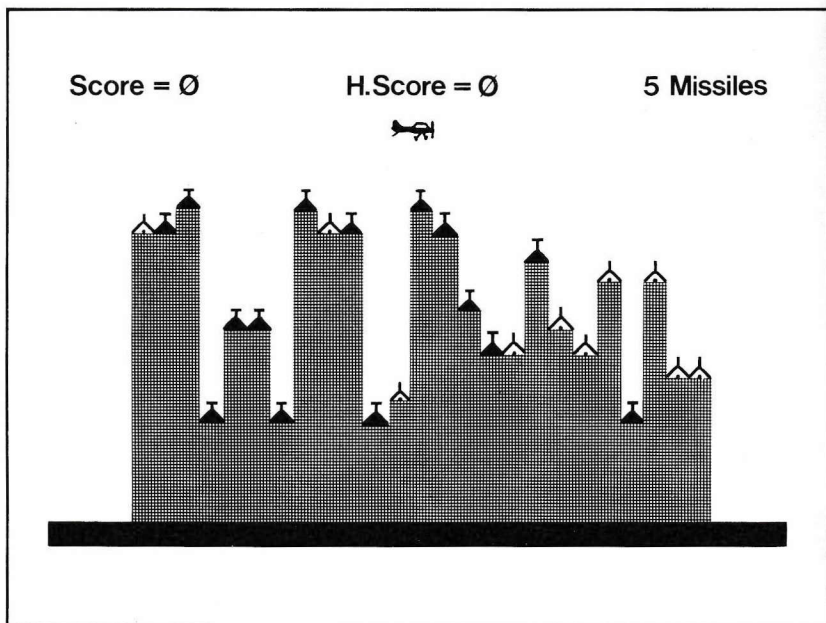
Description

You are the pilot of the experimental X-82 medium-range bomber and your mission is to attack the alien stronghold cities of Gillopalus and raze them to the ground. Your new plane is armed with an unlimited supply of bombs, plus five medium-range forward-firing missiles.

The major drawbacks of this new experimental aircraft are its low firing speed, with only one bomb or missile capable of being released at any one time, and the fact that it can carry only a limited supply of fuel and must therefore land after destroying

each city, before progressing to the next and more difficult target.

As the battle continues, a roll of honour is maintained, with the highest damage figure recorded by the computer. Remember, the harder the target, the more points you can score! Good luck and bombs away!

Program

This program will just fit into the 16K machine, with only a few bytes to spare. As before, there are some user-defined graphics, clearly marked in the program listing, which must be entered with great care.

Instructions

When the command 'RUN' is given, the computer will request you to enter the level of difficulty you require on a scale of 1–10 (1 = difficult, 10 = easy), which will determine the height of the individual buildings in the target city, and the space between the buildings on a scale of 0–3, which will govern the building density.

Controls

The B-key is used to drop a bomb. The M-key is used to fire a missile.

Note

Do not hold the M-key down as this will simply waste the missiles.

```
   1 DATA 0,0,0,16,16,56,68,146,0,0,56,1
6,16,56,124,254
   2 DATA 132,96,34,130,206,158,238,170,
40,56,16,56,68,68,40,16
   3 DATA 0,0,16,72,63,72,16,0,0,112,120
,127,127,32,64,0,0,0,240,154,254,250,80,
136
```

```
   4 DATA 28,93,42,28,8,8,20,34,28,28,8,
28,42,73,20,34: LET hs=0
   5 GO SUB 3000
   8 BORDER 1: PAPER 7: INK 0: CLS
   9 LET b=5: LET sc=0
  25 INPUT "Difficulty (1-10)";k: IF k<1
 OR k>10 THEN   GO TO 25
  26 INPUT "Spaces between buildings (0-
3)";r: LET r=r+1: IF r<1 OR r>4 THEN   GO
 TO 26
  27 LET k=k+2: BRIGHT 1
  30 FOR f=4 TO 28 STEP r
  40 LET l=RND*10+k: FOR g=21 TO l STEP
-1: PRINT AT g,f;"a": NEXT g: PRINT AT g
,f;CHR$ (145+RND*1)
  50 NEXT f
  51 FOR x=0 TO 31: PRINT AT 21,x; INK 2
;"█": NEXT x
  52 BRIGHT 0
  55 LET y=1
  57 INK 0: PRINT AT 0,0; BRIGHT 0;"Scor
e=";sc;AT 0,22;b;" Missiles ";AT 0,10;"H
.Score=";hs
  58 INK 1: POKE 22562,56
  60 FOR x=0 TO 30
  64 PRINT AT y,x;"gh": IF y=20 AND x=30
 THEN   GO TO 2500
  66 LET l$=INKEY$: IF l$<>"" THEN   GO T
O 500
  67 GO SUB 1000
  70 PRINT AT y,x;"  "
  80 NEXT x
  85 PRINT AT y,x;"  "
  90 LET y=y+1: GO TO 60
 500 IF l$="b" THEN   GO TO 600
 510 IF l$="m" THEN   GO TO 520
 515 GO TO 70
 520 LET b=b-1: IF b<=-1 THEN   LET b=0:
```

```
GO TO 67
 522 PRINT AT 0,22;b;" Missiles"
 523 FOR m=x+2 TO x+8
 525 IF m>=31 THEN  GO TO 70
 526 LET j=ATTR (y,m): IF j<>56 THEN  PR
INT AT y,m;" ": GO TO 70
 527 PRINT AT y,m; INK 1;"f": BEEP .05,5
: PRINT AT y,m;" ": NEXT m
 540 GO TO 64
 600 LET e=x: LET f=y+1
 610 IF ATTR (f,e)<>56 THEN  GO TO 700
 620 GO SUB 2000
 630 IF f=21 THEN  GO TO 70
 640 GO TO 610
 700 FOR g=1 TO 6
 710 GO SUB 2000
 711 IF f=21 THEN  GO TO 70
 712 LET sc=sc+1: PRINT AT 0,22;b;" Miss
iles"
 714 PRINT AT 0,0;"Score=";sc
 715 NEXT g
 716 PRINT AT f-1,e; BRIGHT 1; INK 2;"d"
 720 GO TO 70
1000 LET l=ATTR (y,x+2): IF l=56 OR l=57
 OR l=58 THEN  RETURN
1010 RESTORE 73: FOR f=1 TO 11: READ a,b
: BEEP a,b: NEXT f: DATA .35,-1,.3,-1,.1
,-1,.4,-1,.25,2,.15,1,.25,1,.15,-1,.25,-
1,.15,-2,.25,-1
1011 FOR f=1 TO 3: FOR g=0 TO 7: INK g:
PRINT AT y,x;"gh": BEEP .3-(f/10),-g-10:
 NEXT g: NEXT f
1020 INK 6: PAPER 0: CLS : PRINT "You Sc
ored ";sc;" points.": IF sc>hs THEN  GO
TO 4000
1030 PRINT '''"press a key to continue."
: PAUSE 0: GO TO 8
2000 PRINT AT y,x;" ": LET x=x+1: PRINT
```

```
AT y,x;"gh": IF x=31 THEN  PRINT AT y,x;
"   ": LET x=0: LET y=y+1
2002 GO SUB 1000
2005 IF f=21 THEN  RETURN
2010 PRINT AT f,e;"e": BEEP .02,1: PRINT
 AT f,e; INK 0;" ": LET f=f+1
2030 RETURN
2500 PRINT AT 20,30;"  ": PRINT AT 20,0;
"gh"
2510 FOR f=1 TO 150: PRINT AT 20,4;"i";A
T 20,4;"j": NEXT f: BORDER 1
2520 FOR f=1 TO 2: BEEP .2,1: BEEP .1,1:
 BEEP .15,1: BEEP .25,5: BEEP .1,1: BEEP
 .4,5: PAUSE 25: NEXT f
2530 CLS : PRINT AT 0,1; FLASH 1; INK 6;
 PAPER 0;"R u l e  B r i t a n n i a  !"

2540 LET y=21: FOR f=0 TO 30: BORDER RND
*6: LET y=y-21/30: PRINT AT y,f;"gh": BE
EP (31-f)/300,-10: PRINT AT y,f;"   ": NE
XT f: PRINT AT y,f;" "
2541 FOR f=0 TO 30: PRINT AT 0,f;"gh": B
EEP .05,10: PRINT AT 0,f;"   ": NEXT f
2545 INK 0: PAPER 7
2550 CLS         •
2555 LET k=k-1: IF k=0 THEN  LET k=1
2556 LET b=5
2560 BRIGHT 1: GO TO 30
3000 FOR f=0 TO 7 STEP 2: POKE USR "a"+f
,255: POKE USR "a"+f+1,170: NEXT f
3002 FOR f=0 TO 71: READ a: POKE USR "b"
+f,a: NEXT f
3005 LET a$="▮▮▮▮▮▮▮▮▮▮▮▮▮▮"
3006 LET b$="CITY BOMBER"
3009 BORDER 1: INK 6: PAPER 0: CLS
3010 FOR f=9 TO 11: PRINT AT f,10;a$: NE
XT f
3020 FOR s=0 TO 15: PRINT AT s,0;"gh"
3025 IF s=9 OR s=11 THEN  BEEP .5,5: FOR
```

```
f=2 TO 31: PRINT AT s,f;"f": BEEP .02,5
: PRINT AT s,f;" ": NEXT f
3030 IF s=10 THEN  BEEP .5,10: FOR f=2 T
O 30: PRINT AT s,f;"f": IF f>10 AND f<22
 THEN  PRINT AT 10,f;b$(f-10)
3035 IF s=10 THEN  BEEP .02,10: NEXT f
3045 PRINT AT s,0;"  "
3060 NEXT s
3070 FOR g=1 TO 8: FOR f=0 TO 7: PRINT A
T 13,15; INK f;"gh": BEEP .02,f: NEXT f:
 NEXT g
3090 PRINT AT 21,5;"Press a key to conti
nue.": IF INKEY$<>"" THEN  GO TO 3093: P
AUSE 50: BORDER RND*7: GO TO 3090
3091 PAUSE 50: BORDER RND*7: GO TO 3090
3095 CLS
3100 PRINT "To win,you must try to  dest
roy"
3110 PRINT '"the randomly built city so
that"
3120 PRINT '"you can land and refuel saf
ely."
3130 PRINT ''"When you press a key the m
achine"
3140 PRINT '"will ask you what skill lev
el": PRINT '"you require (1 is the Harde
st)."
3150 PRINT '"Then enter the amount of sp
aces"
3160 PRINT '"you want between the buildi
ngs."
3161 INK 4: PRINT '"Use the 'b' key to d
rop a bomb.": PRINT "use the 'm' key to
fire missiles": PRINT "N.B Do NOT hold t
he 'm' key down"
3165 PRINT AT 21,12;"Good Luck"
3170 IF INKEY$<>"" THEN  GO TO 3175
3171 PAUSE 50: BORDER RND*7: GO TO 3170
3180 RETURN
```

```
4000 FOR g=1 TO 3: FOR f=-5 TO 5: BEEP .
05,f: NEXT f: FOR f=5 TO -5 STEP -1: BEE
P .05,f: NEXT f: NEXT g
4010 PRINT '"The High Score ♀ ♀ ♀": LET
hs=sc: GO TO 1030
```

Chapter Eleven

Race and Chase

Description

Hold tight and fasten your safety belt, for you are about to play 'Race and Chase', and *you* are the one being pursued by the relentless computer-controlled vehicle!

The object of the game is to survive for as long as possible without being caught by the computer. As the game is being played, you will score points for eating the green power stars found in the maze. There is no upper limit for the score, since the pursuit vehicle continues to drop these stars as it chases you.

Program

This program will easily fit into the 16K machine. It contains only a few user-defined graphics, which are clearly marked in the usual manner.

Instructions

When the command 'RUN' is given, the maze will be constructed visually on the screen and the game will commence with both vehicles converging along the outer passage. You are then given limited control over the motion of your vehicle, in that you are able to switch lanes at the intersections by using the following controls.

Controls

The I-key moves your vehicle towards the centre. The O-key moves your vehicle away from the centre.

```
   5 GO SUB 9000
  10 CLS
  11 LET sc=0
  12 LET hsc=0
  15 CLS
  20 LET x=16: LET y=10
  30 FOR r=2 TO 10 STEP 2
  40 FOR i=x-r TO x+r
  50 PRINT AT y-r,i; INK 2;"█": PRINT AT
y+r,i; INK 2;"█"
  60 NEXT i
  70 NEXT r
  80 FOR r=2 TO 10 STEP 2
  90 FOR j=y-r TO y+r
 100 PRINT AT j,x-r; INK 2;"█": PRINT AT
j,x+r; INK 2;"█"
 110 NEXT j
 120 NEXT r
 140 FOR i=x-10 TO x+10 STEP 2
 150 PRINT AT y,i;" "
 160 NEXT i
 170 FOR j=y-10 TO y+10 STEP 2
 180 PRINT AT j,x;" "
 190 NEXT j
 200 PRINT AT y,x; INK 0;"█"
 210 FOR r=1 TO 9 STEP 2
 220 FOR i=x-r TO x+r
 230 PRINT AT y-r,i; INK 5;"*": PRINT AT
y+r,i; INK 5;"*"
 240 NEXT i
 250 NEXT r
 260 FOR r=1 TO 9 STEP 2
 270 FOR j=y-r TO y+r
 280 PRINT AT j,x-r; INK 5;"*": PRINT AT
j,x+r; INK 5;"*"
 290 NEXT j
 300 NEXT r
 310 LET r1=9: LET x1=7: LET y1=1
 311 LET r2=9: LET x2=25: LET y2=19
```

```
 320 PRINT AT y1,x1; INK 1;"a"
 330 LET yy1=0: LET xx1=1
 331 LET xx2=0: LET yy2=-1
 340 GO SUB 1000
 345 GO SUB 2000
 350 GO TO 340
1000 IF x1=x+r1 AND y1=y-r1 THEN  LET yy
1=1: LET xx1=0: GO TO 1050
1010 IF x1=x+r1 AND y1=y+r1 THEN  LET xx
1=-1: LET yy1=0: GO TO 1050
1020 IF x1=x-r1 AND y1=y+r1 THEN  LET yy
1=-1: LET xx1=0: GO TO 1050
1030 IF x1=x-r1 AND y1=y-r1 THEN  LET xx
1=1: LET yy1=0: GO TO 1050
1050 PRINT AT y1,x1; INK 5;"*"
1060 LET x1=x1+xx1: LET y1=y1+yy1
1070 PRINT AT y1,x1; INK 1;"a"
1075 IF x1<>x AND y1<>y THEN  RETURN
1080 LET r1n=INT (RND*9)
1090 LET r1n=r1n+1
1100 IF r1n/2=INT (r1n/2) THEN  RETURN
1110 PRINT AT y1,x1; INK 5;"*"
1120 IF x1=x AND y1<y THEN  LET y1=y-r1n
1125 IF y1=y AND x1<x THEN  LET x1=x-r1n
1126 IF y1=y AND x1>x THEN  LET x1=x+r1n
1130 IF x1=x AND y1>y THEN  LET y1=y+r1n
1135 LET r1=r1n
1140 LET r1=r1n
1150 RETURN
2000 IF x2=x+r2 AND y2=y-r2 THEN  LET yy
2=0: LET xx2=-1: GO TO 2050
2010 IF x2=x+r2 AND y2=y+r2 THEN  LET xx
2=0: LET yy2=-1: GO TO 2050
2020 IF x2=x-r2 AND y2=y+r2 THEN  LET xx
2=1: LET yy2=0: GO TO 2050
2030 IF x2=x-r2 AND y2=y-r2 THEN  LET xx
2=0: LET yy2=1: GO TO 2050
2050 PRINT AT y2,x2; INK 7;"  "
2060 LET x2=x2+xx2: LET y2=y2+yy2
```

```
2065 IF ATTR (y2,x2)=61 THEN  LET sc=sc+
1
2066 IF ATTR (y2,x2)=57 THEN  GO TO 3000
2070 PRINT AT y2,x2; INK 1;"b"
2080 IF x2<>x AND y2<>y THEN  RETURN
2090 IF INKEY$="" THEN  RETURN
2100 IF INKEY$="o" THEN  LET rg=1
2110 IF INKEY$="i" THEN  LET rg=-1
2111 IF INKEY$="o" AND r2=9 THEN  LET rg
=0: RETURN
2112 IF INKEY$="i" AND r2=1 THEN  LET rg
=0: RETURN
2115 PRINT AT y2,x2; INK 7;" "
2120 IF x2=x AND y2<y THEN  LET y2=y2-(2
*rg)
2125 IF x2=x AND y2>y THEN  LET y2=y2+(2
*rg)
2130 IF y2=y AND x2>x THEN  LET x2=x2+(2
*rg)
2135 IF y2=y AND x2<x THEN  LET x2=x2-(2
*rg)
2140 LET r2=r2+(2*rg)
2150 RETURN
3000 CLS
3010 FOR j=1 TO 20
3020 PAPER (INT (RND*7))
3030 NEXT j
3040 PAPER 7
3050 PRINT : PRINT : PRINT : PRINT
3051 IF sc<hsc THEN  GO TO 3057
3054 FLASH 1
3055 PRINT "WELL DONE NEW HIGH SCORE"
3056 FLASH 0
3057 PRINT : PRINT : PRINT
3060 PRINT TAB (10);"YOUR SCORE =";sc
3070 PRINT
3080 IF sc>hsc THEN  LET hsc=sc
3090 PRINT TAB (10);"HIGH SCORE=";hsc
3100 PRINT
```

```
3110 PRINT
3120 INPUT "ANOTHER GAME y/n ";a$
3130 IF a$="n" THEN  STOP
3140 LET sc=0
3150 GO TO 15
9000 FOR x=1 TO 2: READ x$: FOR n=USR x$
  TO USR x$+7: READ a: POKE n,a: NEXT n
9010 NEXT x
9020 DATA "a",0,BIN 00111100,BIN 0111111
0,BIN 01010010,BIN 01111110,BIN 0110011
0,BIN 00111100,0
9030 DATA "b",0,BIN 00010000,BIN 0111110
0,BIN 00010000,BIN 00010000,BIN 00101000
,BIN 01000100,0
9100 RETURN
```
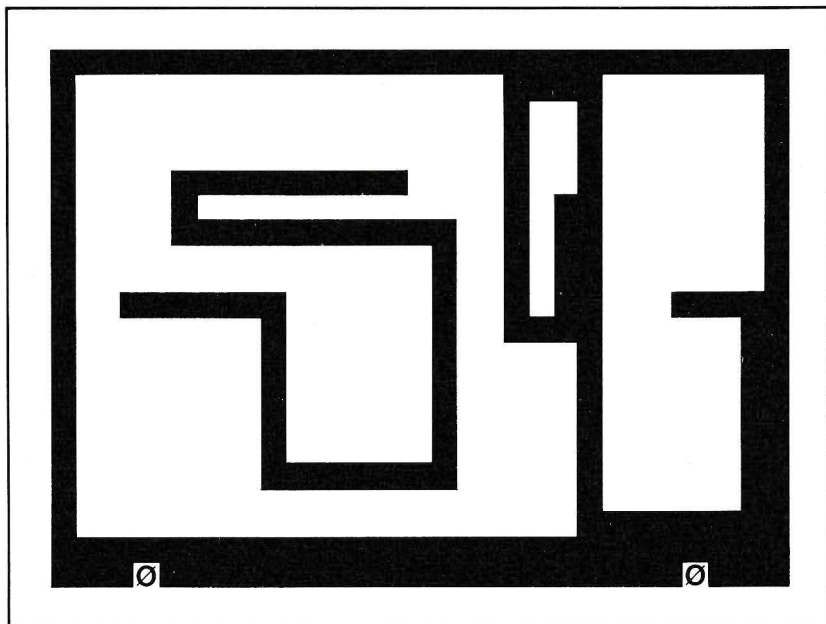
Surround

Description

In this game of skill, logic and quick reflexes, you are about to accept the ultimate challenge: can you surround and thus destroy the computer? You will probably have the edge in skill, but the computer will undoubtedly have the faster reactions. Your only chance of survival, therefore, is to think logically and outwit the machine.

The playing area is a large rectangular space, surrounded by a solid wall, and as you both move you leave a trail of solid objects behind you that are-quite impenetrable to both players. The

object of the game is to surround your opponent, so that he is unable to make a move. If you are the first to achieve this, then you are awarded one point. The first player to reach five points is deemed to be the winner. Good luck!

Program

This is a short program, which contains no defined graphics and should therefore be quick and easy to enter.

Instructions

When the command 'RUN' is given, the playing area will be set up and both players, yourself represented by red and the computer by green, will start converging towards the centre. You may then use the controls in order to attempt to surround the computer.

Controls

The 5-key moves you to the left. The 6-key moves you down. The 7-key moves you up. The 8-key moves you to the right.

Note

The red and green identifying squares continue to move all the time and it is not possible to stop them.

```
 1 LET qq=0
 2 GO SUB 4000
 3 LET s1=0: LET s2=0
10 CLS
11 DIM a(4)
12 LET xx2=-1: LET yy2=0
13 LET qq=0
15 LET XX1=0: LET YY1=0
16 IF s1=5 THEN  GO TO 3000
17 IF s2=5 THEN  GO TO 3100
20 FOR i=0 TO 31
```

```
  30 PRINT AT 0,i; INK 1;"█▌"
  35 PRINT AT 20,i; INK 1;"█▌"
  36 PRINT AT 21,i; INK 1;"█▌"
  40 NEXT i
  50 FOR j=0 TO 21
  60 PRINT AT j,0; INK 1;"█▌"
  70 PRINT AT j,31; INK 1;"█▌"
  80 NEXT j
  90 LET Y1=10: LET X1=3
  95 LET x2=27: LET y2=10
 100 PRINT AT Y1,X1; INK 2;"█▌"
 105 PRINT AT y2,x2; INK 4;"█▌"
 110 IF qq=1 THEN  GO TO 10
 111 PRINT AT 21,3;s1
 112 PRINT AT 21,27;s2
 120 LET A$=INKEY$
 130 IF A$="5" THEN  LET XX1=-1: LET YY1
=0
 140 IF A$="6" THEN  LET XX1=0: LET YY1=
1
 150 IF A$="7" THEN  LET XX1=0: LET YY1=
-1
 160 IF A$="8" THEN  LET XX1=1: LET YY1=
0
 170 GO SUB 1000
 180 GO SUB 2000
 200 GO TO 110
1000 LET X1=X1+XX1: LET Y1=Y1+YY1
1005 IF XX1=0 AND YY1=0 THEN  GO TO 1030
1010 IF ATTR (Y1,X1)>56 THEN  LET s2=s2+
1: LET qq=1: GO TO 1030
1020 PRINT AT Y1,X1; INK 2;"█▌"
1030 RETURN
2010 FOR i=1 TO 4: LET a(i)=0: NEXT i
2015 IF RND<.1 THEN  GO TO 2030
2020 IF ATTR (y2+yy2,x2+xx2)<57 THEN  GO
 TO 2200
2030 LET r=RND
2040 IF r<.25 THEN  LET xx2=1: LET yy2=0
: LET a(1)=1: GO TO 2080
```

```
2050 IF r<.5 THEN  LET xx2=-1: LET yy2=0
: LET a(2)=1: GO TO 2080
2060 IF r<.75 THEN  LET xx2=0: LET yy2=1
: LET a(3)=1: GO TO 2080
2070 IF r<2 THEN  LET xx2=0: LET yy2=-1:
 LET a(4)=1: GO TO 2080
2080 IF ATTR (y2+yy2,x2+xx2)<57 THEN  GO
-TO 2200
2090 IF a(1)=1 AND a(2)=1 AND a(3)=1 AND
 a(4)=1 THEN  LET s1=s1+1: LET qq=1: GO
TO 2400
2100 GO TO 2030
2200 LET x2=x2+xx2: LET y2=y2+yy2
2300 PRINT AT y2,x2; INK 4;"█"
2400 RETURN
3000 CLS
3010 PRINT "WELL DONE YOU WIN"
3020 PRINT "TYPE 'Y' FOR ANOTHER GAME"
3030 INPUT a$
3040 IF a$="y" THEN  GO TO 1
3050 STOP
3100 CLS
3110 PRINT "HARD LUCK I WIN"
3120 GO TO 3020
4000 FOR m=1 TO 6
4001 FOR k=1 TO 6
4010 PAPER k
4015 CLS
4020 NEXT k
4030 NEXT m
4040 PRINT AT 10,10; INK 2;"SURROUND"
4050 FOR k=1 TO 200: NEXT k
4060 FOR m=0 TO 31
4070 PRINT AT 10,m; INK 2;"█"
4075 PAUSE 10
4080 NEXT m
4090 PAUSE 20
4091 PAPER 7
4095 CLS
4100 RETURN
```

Chapter Thirteen

Fruit Machine

18 Credits
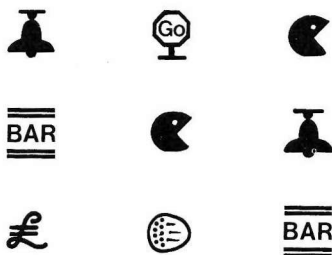
You have 9 Nudges

Description

This is a true simulation of the typical fruit machine found in arcades and public houses throughout the country. It incorporates all the principal features that you would expect to find, including Hold, Nudge and Gamble, the only difference being that you can play this 'fruit machine' for hours and hours and hours, without losing a single penny!

The game is designed to be fun to play on your own, as well as with others. It comes in three separate programs, which must be

used together, since the first contains the full set of graphics, the second, the full set of instructions, together with a demonstration of how not to lose your money, and the third, the actual game itself.

Program

The game is very long and involves several graphics techniques and memory-saving routines to enable it to be used on the 16K machine. It is divided into three distinct programs, which pass information from one to another in the form of a chain. All three programs must be entered before the game can be played.

Fruit Machine 1

This is the first program and contains the code required to redefine the whole of the character set normally used in the Spectrum. It should be typed in very carefully, checked and then 'RUN'. When this has been done, lines 10–240 should be deleted and what is left (i.e. Line 1) should be saved onto tape using the name "fruit1".

Fruit Machine 2

The second program contains detailed instructions for playing the game. It should be typed in very carefully, with special attention being paid to the graphics symbols and the spaces in the more complex lines, which are clearly marked in the program listing. It should then be saved onto tape using the name "fruit2".

Note: As this program uses a redefined character set in order to obtain all the graphics, it should *not* be run at this stage without looking at the instructions below.

Fruit Machine 3

When the first two programs have been entered and saved onto tape, you can turn your attention to the third and final part, which should be typed in and saved under the name "fruit3". Again, do not try to run this program on its own, as some rather unusual effects would then be seen.

Instructions

First, load "fruit1" into the computer and then type MERGE"fruit2" or MERGE"fruit3", depending on whether you want complete instructions and a demonstration of the Hold, Nudge and Gamble features or wish to play the game proper and get down to some heavy gambling.

Controls

When the gambling commences, the following control keys are used to operate the fruit machine.

The X-key is used for spinning the reels.
The Y-key is used to hold a reel.
The N-key is used to not-hold a reel.
The I-key is used to nudge the left reel down.
The J-key is used to nudge the middle reel down.
The K-key is used to nudge the right reel down.
The (SHIFT)I-key is used to nudge the left reel up.
The (SHIFT)J-key is used to nudge the middle reel up.
The (SHIFT)K-key is used to nudge the right reel up.
The C-key is used to collect a win.
The G-key is used to gamble a win.

Note

There are a number of pauses for you to read the information on the screen and you may progress from these by depressing any key.

```
    1 REM 000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
00h000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000
```

```
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
00000000000000000B0000000000000000000000000000
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
000000000000000000000000000000000000000000000A
0000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000
```

```
 10 FOR i=0 TO 63
 20 READ a
 30 POKE 23760+i,a
 40 NEXT i
 50 FOR i=0 TO 719
 60 LET a=PEEK (15680+i)
 70 POKE 23824+i,a
 80 NEXT i
 90 FOR i=0 TO 39
100 READ a
110 POKE 24488+i,a
120 NEXT i
130 FOR i=24528 TO 24696
140 READ a
150 POKE i,a
160 NEXT i
170 STOP
200 DATA 0,0,0,0,0,0,0,0,24,60,102,255,
255,254,126,252,23,27,12,7,7,3,1,0,216,1
84,112,224,224,192,128,0,3,4,8,22,40,40,
43,46,192,32,16,8,4,116,84,116,16,8,4,3,
1,1,1,31,8,16,32,192,128,128,128,248
210 DATA 0,0,0,0,1,15,1,15,0,60,68,152,
0,224,0,224,1,15,17,18,12,0,0,0,0,128,11
```

```
2,14,0,0,0,0,60,66,153,161,161,153,66,60
,255
 220 DATA 255,0,255,0,225,146,148,228,25
5,0,255,0,30,145,81,93,151,148,148,228,0
,255,0,255,244,82,81,81,0,255,0,255,31,3
,1,1,3,7,7,15,240,128,0,0,128,192,192,22
4,15,15,31,63,127,255,0,0,224,224,240,24
8
 230 DATA 252,254,192,0,0,0,0,31,20,37,7
4,86,0,0,0,192,48,200,38,2,66,106,66,85,
36,40,31,0,250,2,18,228,8,112,128,0,0,0,
1,7,15,31,63,63,0,120,254,255,238,252,24
8,240,63,63,63,31,15,7,3,0,224,240,248
 240 DATA 252,254,255,254,0,0,0,1,2,2,2,
5,58,0,128,64,160,160,160,208,46,66,58,5
,2,2,2,1,0,161,46,208,160,160,160,64,128
,24,60,102,255,255,127,124,63,62
```

Fruit 2

```
 15 POKE 23606,208: POKE 23607,91
 16 POKE 23675,208: POKE 23676,95
 17 DIM 9$(5,2): LET 9$(1)=CHR$ (16)+CH
R$ (6): LET 9$(2)=CHR$ (16)+CHR$ (7): LE
T 9$(3)=CHR$ (16)+CHR$ (5): LET 9$(4)=CH
R$ (16)+CHR$ (2): LET 9$(5)=CHR$ (16)+CH
R$ (4)
 21 BORDER 0: INK 6: PAPER 0: CLS
 25 LET a=4: LET b=7: LET c=9: LET w$="
      "
 26 DIM f$(8,6): LET f$(1)=9$(1)+"mnop"
: LET f$(2)=9$(2)+"qrst": LET f$(3)=9$(1
)+"{|}~": LET f$(4)=9$(2)+"abcd": LET f$
(5)=9$(1)+"efgh": LET f$(6)=9$(5)+"ijkl"
: LET f$(7)=9$(4)+"u!""#": LET f$(8)=9$(
1)+"$%&'"
 27 DIM p$(9,6)
 30 LET a$="12367536543536576358": LET
c$="75267375687315476785": LET b$="71824
816854813487148"
 60 PRINT '''"If you are a regular 10p
```

pusher on the machines in the pubs and a
rcades,or just like a good   gamble th
en you have chosen the right piece of so
ftware..."

70 PRINT '"This machine has all the
        facilities that the real thing has
,its just that you do not   lose any mo
ney."

86 IF INKEY$="" THEN GO TO 86

90 CLS : PRINT "Of course,I cannot hop
e to   simulate the sensation you get
   when the coins rattle down the   money
box,but at least if you dolose,you do no
t get that empty pocket feeling."

95 PRINT '"1 10p coin is equal to 1";
FLASH 1;"Credit"; FLASH 0;",and you star
t with 20"; FLASH 1;"Credits"; FLASH 0

100 PRINT '"And Now.....Meet the fruits
.."

105 FOR f=1 TO 3

110 PRINT 9$(1);"ab ";9$(2);"mn ";9$(
1);"{¦ ";9$(2);"qr ";9$(1);"ef ";9$(5
);"ij ";9$(4);"u° ";9$(3);"$x"

120 PRINT 9$(1);"cd ";9$(2);"op ";9$(
1);"}~ ";9$(2);"st ";9$(1);"gh ";9$(5
);"kl ";9$(4);"""# ";9$(3);"&'"

130 NEXT f: POKE 23692,-1

140 PRINT FLASH 1;"20 20 10 10 08
04 04 04": PAUSE 0: PRINT FLASH 0;"E
ach number shows how much you would win
if you got all three   symbols on the w
in line..."

150 PRINT ''"If you get two of a kind o
n the win line then you win 2"; FLASH 1;
"CREDITS"; FLASH 0

160 PAUSE 0: FOR f=1 TO 20: PRINT : NEX
T f

170 PRINT AT 10,0;"Indeed,...any win up
to 8 Creditscan be gambled like this :-"

```
 171 PRINT ''"By pressing any key apart
from"; FLASH 1;"C"; FLASH 0;"you will ga
mble,and the idea is to press a button w
hen you hear the higher note,or when you
 see the arrow on the higher value."
 172 PRINT AT 20,7; INK 2;"Press c to st
op"
 180 LET f=2: GO TO 2500
 190 CLS : FOR f=1 TO 3: PRINT "qr___qr_
__qr": PRINT "st   st   st": PRINT : NEX
T f: PRINT AT 2,2;"\\\ ///";AT 5,2;"///
  \\\";AT 3,14;"27 ways to win";AT 4,16;
"10 Credits"
 200 PRINT AT 9,0;"If you get a star in
all 3 reelsin any position,you win"; FLA
SH 1;"10"; FLASH 0;"      Credits,if you
 get two stars in the first two reels yo
u win 2   Credits."
 201 PRINT ''"Every so often you will se
e"; FLASH 1;"Hold"; FLASH 0;"under the r
eels.To this you mustreply either"; FLAS
H 1;"y"; FLASH 0;"or"; FLASH 1;"n"; FLAS
H 0;"......."
 210 PAUSE 0: CLS : FOR f=10 TO 30: BEEP
.02,f: NEXT f: PRINT TAB 8; INK 1;"N ";
 INK 2;"U "; INK 3;"D "; INK 4;"G "; INK
6;"E ";"That is the sound you will come
 to love,.Lets here it again.": PAUSE 0:
 GO TO 3000
1000 LET w$(4)=a$(a): LET w$(5)=b$(b): L
ET w$(6)=c$(c)
1010 IF a=20 THEN  LET w$(7)="1": LET w$
(1)="5": GO TO 1030
1020 IF a=1 THEN  LET w$(1)="8": LET w$(
7)="2": GO TO 1030
1022 LET w$(1)=a$(a-1): LET w$(7)=a$(a+1
)
1030 IF b=20 THEN  LET w$(8)="7": LET w$
(2)="4": GO TO 1050
1040 IF b=1 THEN  LET w$(2)="8": LET w$(
```

```
8)="1": GO TO 1050
1045 LET w$(2)=b$(b-1): LET w$(8)=b$(b+1
)
1050 IF c=20 THEN  LET w$(9)="7": LET w$
(3)="8": GO TO 1100
1060 IF c=1 THEN  LET w$(3)="5": LET w$(
9)="5": GO TO 1100
1070 LET w$(3)=c$(c-1): LET w$(9)=c$(c+1
)
1102 FOR w=1 TO 9: LET p$(w)=f$(VAL w$(w
)): NEXT w: PRINT AT 6,10;p$(1)(1 TO 4);
AT 7,10;p$(1)(5 TO 6);AT 10,10;p$(4)(1 T
O 4);AT 11,10;p$(4)(5 TO 6);AT 14,10;p$(
7)(1 TO 4);AT 15,10;p$(7)(5 TO 6)
1105 BEEP .05,-10
1110 PRINT AT 6,16;p$(2)(1 TO 4);AT 7,16
;p$(2)(5 TO 6);AT 10,16;p$(5)(1 TO 4);AT
 11,16;p$(5)(5 TO 6);AT 14,16;p$(8)(1 TO
 4);AT 15,16;p$(8)(5 TO 6)
1115 BEEP .05,0
1120 PRINT AT 6,22;p$(3)(1 TO 4);AT 7,22
;p$(3)(5 TO 6);AT 10,22;p$(6)(1 TO 4);AT
 11,22;p$(6)(5 TO 6);AT 14,22;p$(9)(1 TO
 4);AT 15,22;p$(9)(5 TO 6)
1125 BEEP .05,10
1126 INK 3: PLOT 100,87: DRAW 20,0: PLOT
 150,87: DRAW 20,0: INK 6
1130 RETURN
2510 IF f>8 THEN  FOR f=1 TO f: BEEP .02
,10: LET m=m+1: PRINT AT 0,0;m+1;" Credi
ts.": NEXT f: PAUSE 0: GO SUB 9900: RETU
RN
2515 PRINT AT 2,6;"Have a Gamble."
2520 PRINT AT 3,0; BRIGHT 1; FLASH 1;"16
": PRINT '" 8"'" 4"'" 2"'" 0"
2530 LET y=7-(f/4): BEEP .05,y: PRINT AT
 y,3;"O": LET i$=INKEY$
2531 IF i$="" THEN  PRINT AT y,3;" ": GO
 TO 2540
2532 IF i$="c" THEN  GO TO 190
```

```
2535 BEEP .5,-10: LET f=0: PRINT AT 8,1;
 FLASH 1;"0": PRINT AT y,3;" "
2536 IF INKEY$<>"" THEN  GO TO 2536
2537 PRINT AT 21,0; FLASH 1;"Bad luck yo
u lost .Try again..."; FLASH 0: GO TO 18
0
2540 BEEP .05,f*2: PRINT AT 7-f/2,3;"^":
 LET l$=INKEY$
2550 IF l$="" THEN  PRINT AT 7-f/2,3;" "
: GO TO 2530
2555 IF l$="c" THEN  GO TO 190
2560 LET f=f*2: IF f=16 THEN  GO TO 9600
2565 PRINT AT 21,0; FLASH 1;"Well done y
ou won,..Try again,"; FLASH 0
2570 BEEP .5,10: GO TO 2530
3000 CLS : FOR f=10 TO 30: BEEP .02,f: N
EXT f: LET k$="NUDGE": FOR f=1 TO 5: PRI
NT AT 10+RND*5-2.5,f*5;k$(f): BEEP .1,RN
D*30: NEXT f
3010 PRINT AT 0,10;"123456789"
3015 PRINT AT 20,10;"Press a key";AT 21,
4;"to stop the nudge counter"
3020 LET n=INT (RND*9)+1: PRINT AT 1,n+9
;"^": BEEP .01,n: IF INKEY$<>"" THEN  GO
 TO 3040
3030 PRINT AT 1,n+9;" ": GO TO 3020
3040 PRINT ''"Aha,you have ";n;" Nudges,
";AT 19,0;"Use"; FLASH 1;"j,k,l"; FLASH
0;" keys to move reels    1,2,3 down and
 caps shift" ; FLASH 1;"J,K,L"; FLASH 0;
"to move the reels up...   "
3041 IF INKEY$<>"" THEN  GO TO 3041
3042 IF INKEY$="" THEN  GO TO 3042
3043 CLS : GO SUB 1000
3050 PRINT AT 0,0;"Press"; FLASH 1;"s";
FLASH 0;"when you get bored.";AT 18,0;"F
or Now I will give you an      "; FLASH
1;"INFINITE"; FLASH 0;"number of nudges,
but I will not let you win anything,"
```

```
3060 LET l$=INKEY$: IF l$="" THEN  GO TO
 3060
3065 IF l$="s" THEN  CLS : PRINT "Bye fo
r now.Try Loading the realThing..." : LOA
D ""
3070 LET a=a-(l$="j")+(l$="J"): LET b=b-
(l$="k")+(l$="K"): LET c=c-(l$="l")+(l$=
"L"): IF a=21 THEN  LET a=1
3080 IF a=0 THEN  LET a=20
3081 IF b=0 THEN  LET b=20
3082 IF b=21 THEN  LET b=1
3083 IF c=0 THEN  LET c=20
3084 IF c=21 THEN  LET c=1
3085 GO SUB 1000
3090 GO TO 3050
9600 CLS : CIRCLE 128,80,60: CIRCLE 128,
80,5: CIRCLE 98,110,10: CIRCLE 160,110,1
0
9610 PLOT 90,50: DRAW 66,0,-.8
9620 PRINT AT 1,0;"Take 16 Credits off a
n innocent";AT 2,0;"Fruit Machine would
you..."
9740 PAUSE 0: GO TO 190
```

FRUITS

```
   6 RANDOMIZE
  15 POKE 23606,208: POKE 23607,91
  16 POKE 23675,208: POKE 23676,95
  17 DIM 9$(5,2): LET 9$(1)=CHR$ (16)+CH
R$ (6): LET 9$(2)=CHR$ (16)+CHR$ (7): LE
T 9$(3)=CHR$ (16)+CHR$ (5): LET 9$(4)=CH
R$ (16)+CHR$ (2): LET 9$(5)=CHR$ (16)+CH
R$ (4)
  21 BORDER 0: INK 6: PAPER 0: CLS
  22 LET o$="
     "
  25 LET w$="                 "
  26 DIM f$(8,6): LET f$(1)=9$(1)+"mnop"
: LET f$(2)=9$(2)+"qrst": LET f$(3)=9$(1
)+"{|}~": LET f$(4)=9$(2)+"abcd": LET f$
```

```
(5)=g$(1)+"efgh": LET f$(6)=g$(5)+"ijkl"
: LET f$(7)=g$(4)+"uº""#": LET f$(8)=g$(
1)+"$%&'"
  27 DIM p$(9,6)
  30 LET a$="12367536543536576358": LET
c$="75267375687315476785": LET b$="71824
816854813487148"
  31 LET m=20: LET go=0
  32 LET nu=0
  40 LET a=INT (RND*20)+1: LET b=INT (RN
D*20)+1: LET c=INT (RND*20)+1
  41 LET go=go+1: LET m=m-1: IF m<=-1 TH
EN  GO TO 9500
  45 GO SUB 1000: GO SUB 2000
, 55 IF RND>.92 AND nu=0 AND f=0 THEN  G
O TO 3000
  56 IF RND<.25 AND m>0 THEN  GO TO 900
  58 LET nu=0
  60 PAUSE 0: CLS : GO TO 40
 900 FLASH 1: PRINT AT 17,10;"Hold"
 905 IF INKEY$<>"" THEN  GO TO 905
 910 IF INKEY$="n" THEN  BEEP .05,0: LET
a=INT (RND*20)+1: PRINT AT 17,10;"    "
: GO TO 917
 911 IF INKEY$="y" THEN  GO TO 915
 913 GO TO 910
 915 BEEP .1,10: PRINT AT 17,10;"Held"
 917 IF INKEY$<>"" THEN  GO TO 917
 918 PRINT AT 17,16;"Hold"
 920 IF INKEY$="n" THEN  BEEP .05,0: LET
b=INT (RND*20)+1: PRINT AT 17,16;"    "
: GO TO 927
 921 IF INKEY$="y" THEN  GO TO 925
 922 GO TO 920
 925 BEEP .1,10: PRINT AT 17,16;"Held"
 927 IF INKEY$<>"" THEN  GO TO 927
 929 PRINT AT 17,22;"Hold"
 930 IF INKEY$="n" THEN  BEEP .05,0: LET
c=INT (RND*20)+1: PRINT AT 17,22;"    "
```

```
: GO TO 980
 935 IF INKEY$="y" THEN   GO TO 940
 936 GO TO 930
 940 BEEP .1,10: PRINT AT 17,22;"Held"
 980 FLASH 0: PRINT AT 17,0;o$
 982 LET m=m-1: LET go=go+1
 985 GO SUB 1000: GO SUB 2000
 986 IF INKEY$<>"" THEN   GO TO 986
 987 PAUSE 0
 990 GO TO 55
1000 LET w$(4)=a$(a): LET w$(5)=b$(b): L
ET w$(6)=c$(c)
1010 IF a=20 THEN   LET w$(7)="1": LET w$
(1)="5": GO TO 1030
1020 IF a=1 THEN   LET w$(1)="8": LET w$(
7)="2": GO TO 1030
1022 LET w$(1)=a$(a-1): LET w$(7)=a$(a+1
)
1030 IF b=20 THEN   LET w$(8)="7": LET w$
(2)="4": GO TO 1050
1040 IF b=1 THEN   LET w$(2)="8": LET w$(
8)="1": GO TO 1050
1045 LET w$(2)=b$(b-1): LET w$(8)=b$(b+1
)
1050 IF c=20 THEN   LET w$(9)="7": LET w$
(3)="8": GO TO 1100
1060 IF c=1 THEN   LET w$(3)="5": LET w$(
9)="5": GO TO 1100
1070 LET w$(3)=c$(c-1): LET w$(9)=c$(c+1
)
1100 FOR w=1 TO 9: LET p$(w)=f$(VAL w$(w
)): NEXT w: PRINT AT 6,10;p$(1)(1 TO 4);
AT 7,10;p$(1)(5 TO 6);AT 10,10;p$(4)(1 T
O 4);AT 11,10;p$(4)(5 TO 6);AT 14,10;p$(
7)(1 TO 4);AT 15,10;p$(7)(5 TO 6)
1105 BEEP .05,-10
1110 PRINT AT 6,16;p$(2)(1 TO 4);AT 7,16
;p$(2)(5 TO 6);AT 10,16;p$(5)(1 TO 4);AT
 11,16;p$(5)(5 TO 6);AT 14,16;p$(8)(1 TO
```

```
4);AT 15,16;p$(8)(5 TO 6)
1115 BEEP .05,0
1120 PRINT AT 6,22;p$(3)(1 TO 4);AT 7,22
;p$(3)(5 TO 6);AT 10,22;p$(6)(1 TO 4);AT
 11,22;p$(6)(5 TO 6);AT 14,22;p$(9)(1 TO
 4);AT 15,22;p$(9)(5 TO 6)
1125 BEEP .05,10: INK 3: BRIGHT 1: PLOT
100,87: DRAW 20,0: PLOT 150,87: DRAW 20,
0: INK 6: BRIGHT 1
1127 PRINT AT 0,0;m;" Credits."
1130 RETURN
2000 LET f=0: IF w$(4)=w$(5) THEN  GO TO
 2100
2010 IF w$(1)<>"2" AND w$(4)<>"2" AND w$
(7)<>"2" THEN  RETURN
2020 IF w$(2)<>"2" AND w$(5)<>"2" AND w$
(8)<>"2" THEN  RETURN
2030 IF w$(3)="2" OR w$(6)="2" OR w$(9)=
"2" THEN  LET f=10: GO TO 2500
2045 LET f=2
2050 GO TO 2500
2100 IF w$(4)=w$(6) THEN  GO TO 2130
2105 IF w$(4)="2" THEN  IF w$(3)="2" OR
w$(9)="2" THEN  LET f=10: GO TO 2500
2110 LET f=2: GO TO 2500
2130 LET z$=w$(4): IF z$="8" OR z$="7" O
R z$="6" THEN  LET f=4
2140 IF z$="5" THEN  LET f=8
2150 IF z$="3" OR z$="2" THEN  LET f=10
2160 IF z$="1" OR z$="4" THEN  FOR i=-10
 TO 20: BEEP .02,i: BEEP .02,-i: NEXT i:
 LET f=20
2500 PRINT AT 20,0;"Congratulatins....."
;AT 21,0;"You have won ";f;" Credits.
 "
2510 IF f>8 THEN  FOR f=1 TO f: BEEP .02
,10: LET m=m+1: PRINT AT 0,0;m+1;" Credi
ts": NEXT f: PAUSE 0: GO SUB 9900: RETUR
N
```

```
2515 PRINT AT 2,6;"Have a Gamble."
2520 PRINT AT 3,0; BRIGHT 1; FLASH 1;"16
": PRINT '" 8"'" 4"'" 2"'" 0"
2530 LET y=7-(f/4): BEEP .05,y: PRINT AT
 y,3;"O": LET l$=INKEY$
2531 IF l$="" THEN  PRINT AT y,3;" ": GO
 TO 2540
2532 IF l$="c" THEN  GO TO 2600
2535 LET nu=1: BEEP .5,-10: LET f=0: PRI
NT AT 8,1; FLASH 1;"0": PRINT AT y,3;" "
2536 IF INKEY$<>"" THEN  GO TO 2536
2537 PAUSE 0: GO SUB 9900: RETURN
2540 BEEP .05,f*2: PRINT AT 7-f/2,3;"^":
 LET l$=INKEY$
2550 IF l$="" THEN  PRINT AT 7-f/2,3;" "
: GO TO 2530
2555 IF l$="c" THEN  GO TO 2600
2560 LET f=f*2: IF f=16 THEN  GO TO 9600
2565 PRINT AT 19,0;"Congratulatins....."
;AT 20,0;"You can win ";f;" Credits if";
AT 21,0;"you collect now.            "
2570 BEEP .5,10: GO TO 2530
2600 FOR f=1 TO f: PRINT AT 0,0;m+1;" Cr
edits": LET m=m+1: BEEP .05,10: NEXT f
2605 IF INKEY$<>"" THEN  GO TO 2605
2606 PAUSE 0
2607 GO SUB 9990
2610 RETURN
3000 LET nu=0: CLS : FOR f=10 TO 30: BEE
P .02,f: NEXT f: LET k$="NUDGE": FOR f=1
 TO 5: PRINT AT 10+RND*5-2.5,f*5;k$(f):
BEEP .1,RND*30: NEXT f
3010 PRINT AT 0,10;"123456789"
3015 PRINT AT 20,10;"Press a key";AT 21,
4;"to stop the nudge counter"
3020 LET n=INT (RND*9)+1: PRINT AT 1,n+9
;"^": BEEP .01,n: IF INKEY$<>"" THEN  GO
 TO 3040
3030 PRINT AT 1,n+9;" ": GO TO 3020
```

```
3040 PAUSE 0: CLS : GO SUB 1000
3050 PRINT AT 21,6;"You have ";n;" Nudge
s."
3060 LET i$=INKEY$: IF i$="" THEN  GO TO
 3060
3070 LET a=a-(i$="j")+(i$="J"): LET b=b-
(i$="k")+(i$="K"): LET c=c-(i$="l")+(i$=
"L"): IF a=21 THEN  LET a=1
3080 IF a=0 THEN  LET a=20
3081 IF b=0 THEN  LET b=20
3082 IF b=21 THEN  LET b=1
3083 IF c=0 THEN  LET c=20
3084 IF c=21 THEN  LET c=1
3085 GO SUB 1000: GO SUB 2000: LET n=n-1
: IF n=0 THEN  GO TO 60
3087 IF f<>0 OR nu=1 THEN  LET f=0: GO T
O 60
3090 GO TO 3050
9500 CLS : FOR i=1 TO 32: PRINT "TUT.";:
 NEXT i
9555 IF INKEY$<>"" THEN  GO TO 9555
9580 CLEAR : RUN 21
9600 CLS : CIRCLE 128,80,60: CIRCLE 128,
80,5: CIRCLE 98,110,10: CIRCLE 160,110,1
0
9610 PLOT 90,50: DRAW 66,0,-.8
9620 PRINT AT 1,0;"Take 16 Credits off a
n innocent";AT 2,0;"Fruit Machine would
you..."
9630 PRINT AT 21,0;"Well we will soon se
e about that"
9640 FOR f=1 TO f: PRINT AT 0,0;m+1;" Cr
edits.": BEEP .05,10: LET m=m+1: NEXT f:
 PAUSE 20: CLS : GO SUB 1000: RETURN
9990 PRINT AT 19,0;o$;AT 20,0;o$;AT 21,0
;o$: RETURN
```

Othello

```
              1   2   3   4   5   6   7   8

          A   .   .   .   .   .   .   .   .

PLAYER =  B   .   .   .   .   .   .   .   .

   RED    C   .   .   .   .   .   .   .   .

MOVE: F4  D   .   .   .   ■   ■   .   .   .

LAST      E   .   .   .   ■   ■   .   .   .
   MOVE:
          F   .   .   .   ■   .   .   .   .

          G   .   .   .   .   .   .   .   .

          H   .   .   .   .   .   .   .   .
```

Description

In this version of the age-old game invented and mastered in the Far East, you are about to challenge the computer. The object is to complete the game with more of your coloured pieces on the board than your opponent's. The game commences with an 8 × 8 grid being constructed visually on the screen, with two of your pieces and two of the computer's pieces positioned in the centre, as shown below.

```
        ●    O

        O    ●
```

Both players then take turns to put another piece on the board, trapping one or more of the opponent's pieces each time. These are turned over, being deemed to have been captured. The game continues in this manner until all sixty-four positions are occupied. If at any time a player is unable to make a move that would capture one or more of the opponent's pieces, that go becomes void and the game-turn reverts to the opponent.

Program

Regretfully, this program will not fit into the 16K machine. It will fit into the 48K Spectrum, with plenty of room to spare. There should be no problems encountered during the typing stage, since the program contains few graphical characters, the majority of the lines containing the mathematics required to evaluate the best move for the computer.

Instructions

When the game has been loaded from the tape, type 'CAPS LOCK', followed by 'RUN'. You will then be requested to indicate whether you wish to play another person, using the computer as a board and adjudicator, or against the computer itself. Finally, you must type in your name. The computer will then construct the board and very kindly offer you the first move.

Moves are entered using a letter to indicate the row and a number to indicate the column in which you wish to position your piece, e.g. F4 or B2.

Note

If at any time you cannot make a move, then you must type 'I9'. This also applies at the end of the game, when the board is full, and at the beginning, if you would like the computer to make the first move.

```
1 LET K=0
2 LET MOVE=0
3 DIM A(10,10)
```

```
   4 LET A(5,5)=-1
   5 LET A(6,6)=-1
   6 LET A(5,6)=1
   7 LET A(6,5)=1
   8 LET C=0
   9 DIM W(10,10)
  10 LET A$=" "
  11 FOR I=1 TO 10
  12 LET W(I,1)=-8
  13 LET W(I,10)=-8
  14 LET W(1,I)=-8
  15 LET W(10,I)=-8
  16 NEXT I
  17 LET QQ=0
  18 LET JJ=0
  19 LET END=0
  25 IF K=0 THEN   GO SUB 9000
  30 GO SUB 1000
 190 LET MOVE=MOVE+1
 191 IF END>1 THEN   GO TO 7997
 192 IF MOVE/2=INT (MOVE/2) THEN   GO TO
195
 193 PRINT AT 8,2;"RED"
 194 GO TO 196
 195 PRINT AT 8,2;"BLUE"
 196 PRINT AT 10,6;"   "
 197 IF C<>0 THEN   PRINT AT 13,7;A$
 198 LET C=0
 199 IF MOVE/2=INT (MOVE/2) AND PL=1 THE
N  GO TO 4000
 201 INPUT A$
 203 LET I=CODE A$(1)-64
 204 LET J=VAL A$(2)
 206 LET I=I+1
 207 LET J=J+1
 208 PRINT AT 10,6;A$
 213 IF MOVE/2=INT (MOVE/2) AND PL=1 THE
N  GO TO 4000
 215 GO TO 1999
```

```
 216 LET A(I,J)=-1
 217 IF MOVE/2=INT (MOVE/2) THEN  LET A(
I,J)=1
 219 GO SUB 1000
 240 GO TO 190
1000
1001 FOR F=4 TO 18 STEP 2
1002 FOR G=15 TO 29 STEP 2
1003 IF A(F/2,(G-11)/2)=1 THEN  PRINT AT
 F,G; INK 1;"■"
1009 IF A(F/2,(G-11)/2)=-1 THEN  PRINT A
T F,G; INK 2;"■"
1011 IF A(F/2,(G-11)/2)=0 THEN  PRINT AT
 F,G;". "
1013 NEXT G
1014 NEXT F
1015 RETURN
1999 LET MAX=-2
2000 IF A(I,J)=0 THEN  GO TO 2011
2002 FOR F=1 TO 3
2003 PRINT AT 0,0;"ILLEGAL MOVE"
2004 FOR O=0 TO 10
2005 NEXT O
2006 PRINT AT 0,0;"
2007 FOR O=0 TO 10
2008 NEXT O
2009 NEXT F
2010 GO TO 191
2014 PRINT AT 21,5;"
 ."
2016 LET AA=-1
2018 IF MOVE/2=INT (MOVE/2) THEN  LET BB
=-1
2019 IF MOVE/2=INT (MOVE/2) THEN  LET AA
=1
2020 FOR L=J+1 TO 10
2023 IF A(I,L)=0 THEN  GO TO 2040
2024 IF A(I,L)=AA THEN  GO TO 2027
2026 NEXT L
```

```
2027 IF L=J+1 THEN   GO TO 2040
2028 FOR M=J+1 TO L-1
2030 LET A(I,M)=AA
2032 NEXT M
2036 LET C=C+1
2040 FOR L=J-1 TO 1 STEP -1
2042 IF A(I,L)=0 THEN   GO TO 2060
2044 IF A(I,L)=AA THEN   GO TO 2047
2046 NEXT L
2047 IF L=J-1 THEN   GO TO 2060
2048 FOR M=J-1 TO L+1 STEP -1
2050 LET A(I,M)=AA
2052 NEXT M
2053 LET C=C+1
2060 FOR L=I+1 TO 10
2062 IF A(L,J)=0 THEN   GO TO 2080
2064 IF A(L,J)=AA THEN   GO TO 2067
2066 NEXT L
2067 IF L=I+1 THEN   GO TO 2080
2068 FOR M=I+1 TO L-1
2070 LET A(M,J)=AA
2072 NEXT M
2073 LET C=C+13
2080 FOR L=I-1 TO 1 STEP -1
2082 IF A(L,J)=0 THEN   GO TO 2100
2084 IF A(L,J)=AA THEN   GO TO 2087
2086 NEXT L
2087 IF L=I-1 THEN   GO TO 2100
2088 FOR M=I-1 TO L+1 STEP -1
2090 LET A(M,J)=AA
2092 NEXT M
2093 LET C=C+1
2100 REM ^DIAGONALS^
2101 LET Z=1
2102 LET M=J+Z
2103 LET END=END+1
2104 LET L=I-Z
2105 IF J<10 AND I<10 THEN   LET END=0
2106 IF L=1 OR M=10 THEN   GO TO 2120
```

```
2107 IF J=10 OR I=10 THEN  GO TO 4500
2108 IF A(L,M)=0 THEN  GO TO 2120
2109 IF A(L,M)=AA THEN  GO TO 2112
2110 LET Z=Z+1
2111 GO TO 2102
2112 IF Z=1 THEN  GO TO 2120
2113 FOR V=1 TO Z-1
2114 LET L=I-V
2115 LET M=J+V
2116 LET A(L,M)=AA
2117 NEXT V
2118 LET C=C+1
2120 REM ^NEXT DIAG^
2121 LET Z=1
2124 LET L=I+Z
2125 LET M=J-Z
2126 IF L=10 OR M=1 THEN  GO TO 2140
2128 IF A(L,M)=0 THEN  GO TO 2140
2130 IF A(L,M)=AA THEN  GO TO 2133
2131 LET Z=Z+1
2132 GO TO 2124
2133 IF Z=1 THEN  GO TO 2140
2134 FOR V=1 TO Z-1
2135 LET L=I+V
2136 LET M=J-V
2137 LET A(L,M)=AA
2138 NEXT V
2139 LET C=C+1
2140 LET Z=1
2141 LET L=I+Z
2142 LET M=J+Z
2143 IF L=10 OR M=10 THEN  GO TO 2160
2144 IF A(L,M)=0 THEN  GO TO 2160
2145 IF A(L,M)=AA THEN  GO TO 2148
2146 LET Z=Z+1
2147 GO TO 2141
2148 IF Z=1 THEN  GO TO 2160
2149 FOR V=1 TO Z-1
2150 LET L=I+V
```

```
2151 LET M=J+V
2152 LET A(L,M)=AA
2153 NEXT V
2154 LET C=C+1
2160 LET Z=1
2161 LET L=I-Z
2162 LET M=J-Z
2163 IF L=1 OR M=1 THEN  GO TO 2180
2164 IF A(L,M)=0 THEN   GO TO 2180
2170 IF A(L,M)=AA THEN   GO TO 2173
2171 LET Z=Z+1
2172 GO TO 2161
2173 IF Z=1 THEN  GO TO 2180
2174 FOR V=1 TO Z-1
2175 LET L=I-V
2176 LET M=J-V
2177 LET A(L,M)=AA
2178 NEXT V
2179 LET C=C+1
2180 REM ^END OF SEQUENCE^
2191 IF C=0 THEN  GO TO 2001
2200 GO TO 216
4000 LET MAX=-6
4011 PRINT AT 21,5;"P L E A S E    W A I
T"
4012 FOR T=1 TO 25
4013 NEXT T
4014 PRINT AT 21,5;"
 "
4015
4016 GO TO 5000
4500
4501 FOR F=1 TO 3
4502 PRINT AT 0,0;"NO POSSIBLE MOVE FOR
THIS PLAYER"
4503 FOR G=1 TO 8
4504 NEXT G
4505 PRINT AT 0,0;"
        "
```

```
4506 NEXT F
4507 GO TO 190
5000 FOR I=2 TO 9
5001 FOR J=2 TO 9
5002 LET W(I,J)=0
5003 NEXT J
5004 NEXT I
5007 LET AA=1
5008 LET BB=-1
5009 FOR I=2 TO 9
5010 FOR J=2 TO 9
5015 IF A(I,J)=0 THEN  GO TO 5024
5020 LET W(I,J)=-8
5023 GO TO 5025
5024 GO SUB 5100
5025 NEXT J
5030 NEXT I
5035 FOR I=2 TO 9
5040 FOR J=2 TO 9
5050 IF W(I,J)=MAX THEN  GO TO 5059
5054 NEXT J
5058 NEXT I
5059 PRINT AT 10,6;CHR$ (I+64);J-1
5060 LET A$=CHR$ (I+64)+STR$ (J-1)
5080 GO TO 2020
5100 FOR L=-1 TO 1
5110 FOR M=-1 TO 1
5115 IF A(I+L,J+M)=BB THEN  GO TO 5130
5120 NEXT M
5125 NEXT L
5126 LET W(I,J)=-4
5127 RETURN
5130 REM
6020 FOR L=J+1 TO 10
6022 IF A(I,L)=0 THEN  GO TO 6040
6024 IF A(I,L)=AA THEN  GO TO 6027
6026 NEXT L
6027 IF L=J+1 THEN  GO TO 6040
6028 FOR M=J+1 TO L-1
```

```
6032 LET W(I,J)=W(I,J)+1
6036 NEXT M
6040 FOR L=J-1 TO 1 STEP -1
6042 IF A(I,L)=0 THEN   GO TO 6060
6044 IF A(I,L)=AA THEN   GO TO 6047
6046 NEXT L
6047 IF L=J-1 THEN   GO TO 6060
6048 FOR M=J-1 TO L+1 STEP -1
6050 LET W(I,J)=W(I,J)+1
6052 NEXT M
6060 FOR L=I+1 TO 10
6062 IF A(L,J)=0 THEN   GO TO 6080
6064 IF A(L,J)=AA THEN   GO TO 6067
6066 NEXT L
6067 IF L=I+1 THEN   GO TO 6080
6068 FOR M=I+1 TO L-1
6070 LET W(I,J)=W(I,J)+1
6072 NEXT M
6080 FOR L=I-1 TO 1 STEP -1
6082 IF A(L,J)=0 THEN   GO TO 6100
6084 IF A(L,J)=AA THEN   GO TO 6087
6086 NEXT L
6087 IF L=I-1 THEN   GO TO 6100
6088 FOR M=I-1 TO L+1 STEP -1
6090 LET W(I,J)=W(I,J)+1
6092 NEXT M
6100 LET Z=1
6102 LET M=J+Z
6104 LET L=I-Z
6106 IF L=1 OR M=10 THEN   GO TO 6120
6108 IF A(L,M)=0 THEN   GO TO 6120
6109 IF A(L,M)=AA THEN   GO TO 6112
6110 LET Z=Z+1
6111 GO TO 6102
6112 IF Z=1 THEN   GO TO 6120
6113 FOR V=1 TO Z-1
6114 LET L=I-V
6115 LET M=J+V
6116 LET W(I,J)=W(I,J)+1
```

```
6117 NEXT V
6120 LET Z=1
6124 LET L=I+Z
6125 LET M=J-Z
6126 IF L=10 OR M=1 THEN  GO TO 6140
6128 IF A(L,M)=0 THEN  GO TO 6140
6129 IF A(L,M)=AA THEN  GO TO 6132
6130 LET Z=Z+1
6131 GO TO 6124
6132 IF Z=1 THEN  GO TO 6140
6133 FOR V=1 TO Z-1
6134 LET L=I+V
6135 LET M=J-V
6136 LET W(I,J)=W(I,J)+1
6137 NEXT V
6140 LET Z=1
6144 LET L=I+Z
6145 LET M=J+Z
6146 IF L=10 OR M=10 THEN  GO TO 6160
6148 IF A(L,M)=0 THEN  GO TO 6160
6149 IF A(L,M)=AA THEN  GO TO 6152
6150 LET Z=Z+1
6151 GO TO 6144
6152 IF Z=1 THEN  GO TO 6160
6153 FOR V=1 TO Z-1
6154 LET L=I+V
6155 LET M=J+V
6156 LET W(I,J)=W(I,J)+1
6157 NEXT V
6160 LET Z=1
6164 LET L=I-Z
6165 LET M=J-Z
6166 IF L=1 OR M=1 THEN  GO TO 6178
6168 IF A(L,M)=0 THEN  GO TO 6178
6169 IF A(L,M)=AA THEN  GO TO 6172
6170 LET Z=Z+1
6171 GO TO 6164
6172 IF Z=1 THEN  GO TO 6178
6173 FOR V=1 TO Z-1
```

```
6174 LET L=I-U
6175 LET M=J-U
6176 LET W(I,J)=W(I,J)+1
6177 NEXT U
6178 IF W(I,J)=0 THEN   LET W(I,J)=-8
6179 IF W(I,J)=-8 THEN   RETURN
6180 IF I=J=2 THEN   LET W(I,J)=W(I,J)+4
6182 IF I=J=9 THEN   LET W(I,J)=W(I,J)+4
6184 IF I=2 AND J=9 THEN   LET W(I,J)=W(I
,J)+4
6186 IF I=9 AND J=2 THEN   LET W(I,J)=W(I
,J)+4
6188 IF I=2 THEN   LET W(I,J)=W(I,J)+2
6190 IF I=9 THEN   LET W(I,J)=W(I,J)+2
6191 IF J=2 THEN   LET W(I,J)=W(I,J)+2
6192 IF J=9 THEN   LET W(I,J)=W(I,J)+2
6193 IF I=3 OR I=8 THEN   LET W(I,J)=W(I,
J)-2
6194 IF J=3 OR J=8 THEN   LET W(I,J)=W(I,
J)-2
6200 IF W(I,J)>MAX THEN   LET MAX=W(I,J)
6202 RETURN
7000 FOR X=29 TO 60
7004 NEXT X
7005 FOR Y=4 TO 37
7008 NEXT Y
7009 PRINT AT 2,15;"1 2 3 4 5 6 7 8"
7010 LET L=2
7011 FOR K=65 TO 72
7012 LET L=L+2
7013 PRINT AT L,12;CHR$ (K)
7014 NEXT K
7015 FOR X=1 TO 18
7018 NEXT X
7019 FOR Y=12 TO 33
7022 NEXT Y
7023 PRINT AT 6,1;"PLAYER="
7024 PRINT AT 10,1;"MOVE:"
7025 PRINT AT 12,1;"LAST";AT 13,2;"MOVE:
"
```
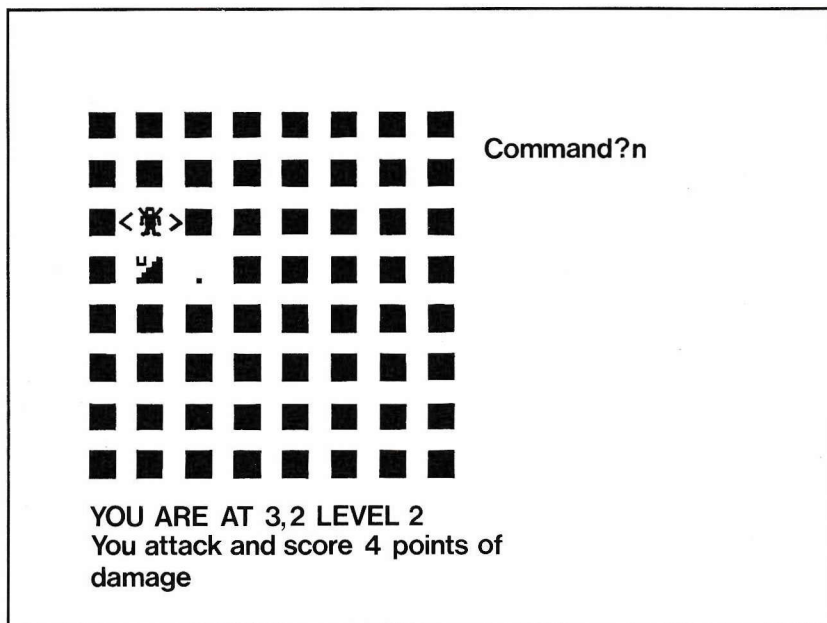
```
7027 RETURN
7997
7998 FOR H=2 TO 9
7999 FOR G=2 TO 9
8000 PRINT AT 21,0;"W A I T    F O R    R
 E S U L T"
8001 IF A(H,G)=1 THEN  LET JJ=JJ+1
8002 IF A(H,G)=-1 THEN  LET QQ=QQ+1
8003 PRINT AT 21,0;"
                  "
8004 NEXT G
8005 NEXT H
8006 CLS
8007 IF JJ>QQ THEN  PRINT N$;" HAS WON T
HE GAME,";JJ;" TO ";QQ
8008 IF QQ>JJ THEN  PRINT M$;" HAS WON T
HE GAME,";QQ;" TO ";JJ
8009 IF QQ=JJ THEN  PRINT "THE GAME WAS
A DRAW"
8010 PRINT AT 2,5;"DO YOU WANT ANOTHER G
AME?"
8011 IF INKEY$<>"" THEN  GO TO 8011
8012 IF INKEY$="" THEN  GO TO 8012
8013 LET END=0
8014 IF INKEY$<>"Y" THEN  GO TO 8022
8015 GO SUB 9040
8020 LET K=1
8021 GO TO 2
8022 STOP
9001 FOR G=0 TO 21 STEP 2
9002 PRINT AT G,5;"O T H E L L O"
9003 NEXT G
9004 FOR G=21 TO 0 STEP -2
9005 PRINT AT G,10;"O T H E L L O"
9006 NEXT G
9011 FOR F=1 TO 20
9012 NEXT F
9013 CLS
9014 REM
```

```
9020 LET K=0
9021 IF INKEY$<>"" THEN  GO TO 9021
9022 IF INKEY$="" THEN  GO TO 9023
9049 CLS
9050 PRINT "NUMBER OF PLAYERS-1(AGAINST
THE COMPUTER) OR 2"
9051 LET A$=INKEY$
9052 IF A$<"1" OR A$>"2" THEN  GO TO 905
1
9053 LET PL=VAL A$
9054 IF PL=2 THEN  GO TO 9060
9055 PRINT AT 2,5;"NAME,PLEASE?"
9056 INPUT M$
9057 LET N$="THE COMPUTOR"
9058 GO TO 9100
9060 PRINT AT 2,5;"NAME OF PLAYER 1,PLEA
SE?"
9061 INPUT M$
9062 PRINT AT 3,5;"NAME OF PLAYER 2,PLEA
SE?"
9063 INPUT N$
9100 CLS
9110 GO SUB 7000
9120 RETURN
9900 SAVE "OTHELLO"
9910 GO TO 1
```

Chapter Fifteen

Dungeons of Death

```
■ ■ ■ ■ ■ ■ ■ ■        Command?n
■ ■ ■ ■ ■ ■ ■ ■
■<👹>■ ■ ■ ■ ■ ■
■ 👹 . ■ ■ ■ ■ ■
■ ■ ■ ■ ■ ■ ■ ■
■ ■ ■ ■ ■ ■ ■ ■
■ ■ ■ ■ ■ ■ ■ ■
■ ■ ■ ■ ■ ■ ■ ■
```

YOU ARE AT 3,2 LEVEL 2
You attack and score 4 points of
damage

Description

You are an adventurer in the 'Dungeons of Death' and your quest is to locate the Magic Orb and return it to the Lords of Light, from whom it was stolen. Numerous dangers threaten you in the eight levels of dark, dank, dismal dungeons and so far no one who has entered has ever returned to tell the tale. Can you be the first to brave the ferocious monsters and treacherous conditions to win through safely?

In the maze of dungeons, you will find many things that will

influence your journey. Some are inherently dangerous, while others may be useful — if skilfully manipulated. Some of these are listed below.

TREASURE There are ten treasures to be found, the last of which is the Goldrod, which gives you the ability to teleport anywhere throughout the dungeons.

ORBS These are most useful, since you can gaze into them in the hope of obtaining information concerning the location of the Magic Orb. It should be noted, however, that every gaze into an orb costs one point of dexterity.

VENDORS There are several vendors wandering around the various levels and they will be more than happy to buy your treasures and/or sell you potions for all sorts of things.

MONSTERS There are several different types of monster lurking in the dungeons. You may either attack or retreat from these. Killing a monster is the best way to obtain the all-important gold required for trading with the vendors.

CHESTS These may be opened . . . if you dare!

BOOKS These may also be opened, if you wish.

WARPS If you land on a warp, you will be transported to a randomly selected position within the dungeons.

SINK-HOLES Stepping onto a sink-hole will transport you down to the next level of the dungeons.

Good hunting, good fortune and good luck — you'll need it!

Program

Although the game is split into two distinct programs, it will still not fit into the 16K machine, owing to the large amount of memory required to represent the map of the dungeons.

Dungeon 1

This program contains the lines defining the graphics characters specifically required for the main game-playing program. This should be typed into the computer and then saved onto tape using the name "dungeon1".

Dungeon 2

This is the main program and contains a considerable number of user-defined graphics, clearly marked in the program listing, which must be entered with great care. When the typing is complete, this program should be saved onto tape using the name "dungeon2".

Instructions

Load "dungeon1" into the computer and then type 'RUN'. When the processing has been completed, "dungeon2" will be automatically loaded and the game will then commence. During your exploration of the depths you will have two facilities at your disposal:

SITUATION If your strength, dexterity or intelligence falls below zero, you will perish immediately. It is therefore imperative that you keep a watchful eye on these factors at all times. By typing 'A' at any time other than when faced by a monster, a status report will be displayed.

FLARES Using the flares command will cause the dungeons around you to light up. You may not, however, use this facility when at the edge of any level, and as the number of flares is limited, they should be used sparingly.

Controls

The N-key moves you to the north.
The S-key moves you to the south.
The W-key moves you to the west.
The E-key moves you to the east.
The U-key is used for climbing stairs.
The T-key is used to teleport if you have the goldrod.
The G-key is used to gaze into an orb.
The Y-key is used to trade with a vendor.
The A-key is used to attack a monster.
The R-key is used to retreat from a monster.
The O-key is used to open a chest or book.
The D-key is used to have a drink from the pool.
The A-key is used to obtain a status report.
The F-key is used to light a flare.

Graphics

The Table below identifies the graphics symbols found in the dungeons.

[]	=	**A book**
⬛	=	**A chest**
▮	=	**The entrance**
ˑƳˑ	=	**Flares**
≊	=	**Gold**
ⵜᵃ	=	**A vendor**
ⓖ	=	**A warp**
⯬	=	**A monster**
♟	=	**An orb**
♣	=	**A pool**
◙	=	**A sinkhole**
◈	=	**Treasure**
◢	=	**Stairs up**

```
    5 REM character definition program
   10 FOR a=1 TO 14: READ a$: FOR b=0 TO
7: READ n: POKE USR a$+b,n: NEXT b: NEXT
  a
   15 DATA "b",62,126,70,70,70,70,70,124
   20 DATA "c",0,63,67,253,253,254,252,0
   30 DATA "d",6,69,101,118,120,124,126,0
   40 DATA "e",0,62,62,62,58,62,62,62
   50 DATA "f",128,54,28,72,8,10,40,0
   60 DATA "9",0,60,126,0,60,126,0,0
   70 DATA "i",48,39,125,167,32,80,72,72
   80 DATA "k",127,128,158,161,165,153,12
9,126
   90 DATA "m",90,36,24,60,90,24,36,102
  100 DATA "o",0,24,60,126,60,24,60,126
  110 DATA "p",16,56,124,126,60,28,24,0
  120 DATA "s",0,60,66,90,90,66,60,0
```

```
 125 DATA "t",73,20,34,73,34,20,73,0
 130 DATA "u",80,82,118,14,30,62,126,0
 150 PRINT "Would you like a printout of
allthe graphic characters for the  game
?"
 160 INPUT y$: IF y$(1)="y" THEN  GO TO
500
 170 STOP
 500 LPRINT "b=A book"
 505 LPRINT
 510 LPRINT "c=A chest"
 515 LPRINT
 520 LPRINT "e=The entrance"
 525 LPRINT
 530 LPRINT "f=Flares"
 535 LPRINT
 540 LPRINT "g=Gold"
 545 LPRINT
 550 LPRINT "i=A vendor"
 555 LPRINT
 560 LPRINT "k=A warp"
 565 LPRINT
 570 LPRINT "m=A monster"
 575 LPRINT
 580 LPRINT "o=An orb"
 585 LPRINT
 590 LPRINT "p=A pool"
 595 LPRINT
 600 LPRINT "s=A sinkhole"
 605 LPRINT
 610 LPRINT "t=Treasure"
 615 LPRINT
 620 LPRINT "u=Stairs up"
 630 STOP
```

Dungeon 2

```
   4 BORDER 6
   6 PRINT AT 10,10; FLASH 1; INVERSE 1;
INK 1;"Initializing"
   7 LET OOZ=0
```

```
 10 DIM A$(8,8,8)
 20 DIM C$(8,8,8)
 22 LET OR=INT (RND*8)+1
 24 LET OF=INT (RND*8)+1
 26 LET ZOT=INT (RND*8)+1
 30 LET X=1
 31 DIM P$(3,12)
 32 LET P$(1)="Intelligence"
 33 LET P$(2)="Strength"
 34 LET P$(3)="Dexterity"
 36 LET ORB=0: LET CHEST=0: LET BOOK=0:
LET POOL=0: LET VEND=0: LET UP=0
 40 LET Y=4
 41 DIM M$(6,10)
 42 LET M$(1)="Kobolo"
 43 LET M$(2)="Dragon"
 44 LET M$(3)="Wolf"
 45 LET M$(4)="Chimera"
 46 LET M$(5)="Ogre"
 47 LET M$(6)="Cyclops"
 50 LET L=1
 51 DIM E(10)
 52 FOR T=1 TO 10
 53 LET E(T)=0
 54 NEXT T
 57 LET TATT=0
 60 LET AX=2
 70 LET AY=8
 80 LET F=INT (RND*20)+1
 90 LET GP=INT (RND*600)+200
110 LET ARMOUR=0
120 LET WEAPON=0
130 LET D=INT (RND*18)+1
137 LET R=1
140 LET I=INT (RND*18)+1
150 LET S=INT (RND*18)+1
160 DIM T$(10,20)
170 LET T$(1)="Pale pearl"
180 LET T$(2)="Ruby red"
```

```
 190 LET T$(3)="Blue flame"
 200 LET T$(4)="Opal eye"
 210 LET T$(5)="Green gem"
 220 LET T$(6)="Shining ring"
 230 LET T$(7)="Silmaril"
 240 LET T$(8)="Precious gold"
 245 LET B$=".m.m.b.o.p.m.k.m.s.u.g.f.c.
i."
 260 LET T$(9)="Orange amber"
 270 LET T$(10)="Goldrod"
 280 FOR A=1 TO 8
 290 FOR B=1 TO 8
 300 FOR C=1 TO 8
 310 LET DIM=INT (RND*29)+1
 320 LET A$(B,C,A)=B$(DIM)
 330 LET C$(B,C,A)=" "
 340 NEXT C
 350 NEXT B
 360 NEXT A
x363 LET A$(OR,OF,OT)="o"
x364 LET A$(1,4,1)="e"
 365 FOR T=1 TO 10
 366 LET A$(INT (RND*8)+1,INT (RND*8)+1,
INT (RND*8)+1)="t"
 367 NEXT T
 368 CLS
 370 PRINT "Your strength is ";S
 380 PRINT "Your intelligence is ";I
 390 PRINT "Your dexterity is ";D
 400 PRINT
 410 PRINT "You have ";F;" flares and "
 420 PRINT "You have ";GP;" Gold pieces"
 430 PRINT
 440 PRINT "Press any key to continue"
 445 PAUSE 30000
 450 IF INKEY$="" THEN  GO TO 450
 460 CLS
 470 PRINT "You may buy:"
 480 PRINT "1) Plate, for 150 GPS"
```

```
490 PRINT "2) Chainmail, for 100 GPS"
500 PRINT "3) Leather, for 50 GPS"
530 PRINT
540 PRINT "Input your choice"
550 INPUT CHOICE
555 GO SUB 560
557 GO TO 630
560 IF CHOICE=1 THEN  LET GP=GP-150
570 IF CHOICE=1 THEN  LET ARMOUR=ARMOUR
+30
580 IF CHOICE=2 THEN  LET GP=GP-100
590 IF CHOICE=2 THEN  LET ARMOUR=ARMOUR
+20
600 IF CHOICE=3 THEN  LET GP=GP-50
610 IF CHOICE=3 THEN  LET ARMOUR=ARMOUR
+10
615 RETURN
630 CLS
635 PRINT "And now a weapon"
640 PRINT
650 PRINT "1) A sword (150)"
660 PRINT "2) A knife (100)"
670 PRINT "3) A piece of wood (50)"
680 PRINT
690 PRINT "Input your choice"
700 INPUT CHOICE
710 GO SUB 560
720 CLS
722 GO SUB 730
725 GO SUB 740
727 GO TO 835
730 PRINT AT 18,0;"YOU ARE AT ";X;",";Y
;" LEVEL ";L
735 RETURN
750 FOR R=1 TO 8
760 FOR U=1 TO 8
770 PRINT AT R*2,U*2;C$(R,U,L)
780 NEXT U
790 NEXT R
```

```
800 PRINT AT AX,AY-1;"<";AT AX,AY+1;">"
810 PRINT AT AX,AY;A$(X,Y,L)
820 LET C$(X,Y,L)=A$(X,Y,L)
822 IF F<0 THEN  LET F=0
825 RETURN
830 GO SUB 730
832 RETURN
833 GO SUB 2100
835 GO TO 848
840 IF X=1 AND Y=4 AND L=1 THEN  GO TO
4100
841 PRINT AT 19,0;"


842 GO SUB 830
844 LET ORB=0: LET CHEST=0: LET BOOK=0:
LET POOL=0: LET UP=0: LET VEND=0
845 IF GP<0 THEN  LET GP=0
846 GO SUB 800
847 GO SUB 2100
848 PRINT AT 5,18;"Command?";
849 IF S<1 OR I<1 OR D<1 THEN  GO TO 50
00
850 PAUSE 30000
851 LET Z$=INKEY$
852 PRINT AT 19,0;"


860 PRINT AT 5,26;Z$
865 GO SUB 2000
870 IF Z$="n" THEN  GO TO 1000
880 IF Z$="s" THEN  GO TO 1100
890 IF Z$="e" THEN  GO TO 1200
900 IF Z$="w" THEN  GO TO 1300
910 IF Z$="f" THEN  GO TO 1400
920 IF Z$="t" THEN  GO TO 1600
940 IF Z$="a" THEN  GO TO 2000
941 IF Z$="g" AND ORB=1 THEN  GO TO 234
0
```

```
 942 IF Z$="o" AND CHEST=1 THEN   GO TO 2
709
 943 IF Z$="o" AND BOOK=1 THEN   GO TO 28
15
 944 IF Z$="u" AND UP=1 THEN   GO TO 2930
 945 IF Z$="d" AND POOL=1 THEN   GO TO 32
10
 946 IF Z$="y" AND VEND=1 THEN   GO TO 36
20
 960 GO TO 840
1000 IF X=1 THEN   GO TO 1050
1010 LET AX=AX-2
1020 LET X=X-1
1040 GO TO 840
1050 LET AX=16
1060 LET X=8
1070 GO TO 840
1100 IF AX=16 THEN   GO TO 1150
1110 LET AX=AX+2
1120 LET X=X+1
1140 GO TO 840
1150 LET AX=2
1160 LET X=1
1170 GO TO 1140
1200 IF Y=8 THEN   GO TO 1250
1210 LET AY=AY+2
1220 LET Y=Y+1
1240 GO TO 840
1250 LET AY=2
1260 LET Y=1
1270 GO TO 1230
1300 IF AY=2 THEN   GO TO 1350
1310 LET AY=AY-2
1320 LET Y=Y-1
1340 GO TO 840
1350 LET AY=16
1360 LET Y=8
1370 GO TO 1330
1400 IF F>0 THEN   GO TO 1432
```

```
1420 PRINT AT 19,0;"YOU HAVE NO FLARES L
EFT            "
1430 BEEP 2,7
1431 GO TO 840
1432 IF X=1 OR X=8 OR Y=1 OR Y=8 THEN  G
O TO 840
1440 PRINT AT AX-2,AY;A$(X-1,Y,L)
1450 PRINT AT AX+2,AY;A$(X+1,Y,L)
1460 PRINT AT AX,AY+2;A$(X,Y+1,L)
1465 PRINT AT AX,AY-2;A$(X,Y-1,L)
1470 PRINT AT AX-2,AY-2;A$(X-1,Y-1,L)
1475 PRINT AT AX-2,AY+2;A$(X-1,Y+1,L)
1477 PRINT AT AX+2,AY-2;A$(X+1,Y-1,L)
1480 PRINT AT AX+2,AY+2;A$(X+1,Y+1,L)
1490 LET F=F-1
1510 GO TO 840
1600 IF E(10)=10 THEN  GO TO 1640
1610 PRINT AT 19,0;"You do not have the
Goldrod"
1620 PRINT AT 20,0;"So you cannot telepo
rt"
1625 PAUSE 0
1630 GO TO 840
1640 CLS
1650 PRINT "To where will you teleport?"
1655 PRINT "x co-ordinate=";
1660 INPUT X
1662 PRINT X
1665 PRINT "y co-ordinate=";
1667 INPUT Y
1670 PRINT Y
1680 PRINT "Level=";
1682 INPUT L
1695 PRINT L
1696 LET AX=X*2
1697 LET AY=Y*2
1698 GO TO 720
2000 PRINT AT AX,AY-1;" ";AT AX,AY+1;" "
```

```
2010 RETURN
2100 LET X$=A$(X,Y,L)
2102 IF X$="o" AND X=OR AND Y=OF AND L=Z
OT THEN   GO TO 4000
2105 IF X$="e" THEN   GO TO 4100
2110 IF X$="o" THEN   GO TO 2300
2120 IF X$="q" THEN   GO TO 2500
2130 IF X$="f" THEN   GO TO 2600
2140 IF X$="c" THEN   GO TO 2700
2150 IF X$="b" THEN   GO TO 2800
2160 IF X$="u" THEN   GO TO 2900
2170 IF X$="s" THEN   GO TO 3000
2180 IF X$="t" THEN   GO TO 3100
2190 IF X$="p" THEN   GO TO 3200
2200 IF X$="k" THEN   GO TO 3300
2210 IF X$="m" THEN   GO TO 3400
2220 IF X$="i" THEN   GO TO 3600
2230 PRINT AT 19,0;"You are in an empty
room"
2240 RETURN
2300 PRINT AT 19,0;"Here is an orb"
2301 PRINT AT 5,18;"Command?";
2302 LET ORB=1
2305 GO TO 848
2310 PAUSE 30000
2315 LET Z$=INKEY$
2330 PRINT Z$
2340 IF Z$="g" THEN   GO TO 2355
2350 GO TO 865
2355 PRINT AT 19,0;"
                      "
2360 PRINT AT 19,0;"You see"
2370 LET RNAD=INT (RND*5+1)
2380 IF RNAD=1 THEN  PRINT "Yourself in
a bloody heap"
2890 PRINT "FLASH....your eyes hurt"
2891 LET F=0
2892 LET I=I-INT (RND*5)+1
2895 GO TO 800
```

```
2900 PRINT AT 19,0;"You find stairs goin
g up"
2901 PRINT AT 5,18;"Command?";
2902 LET UP=1
2903 GO TO 848
2905 PAUSE 30000
2910 LET Z$=INKEY$
2920 PRINT Z$
2930 IF Z$<>"u" THEN  GO TO 848
2932 LET UP=0
2935 IF L=1 THEN  GO TO 2970
2937 LET L=L-1
2940 GO TO 720
2970 LET L=8
2980 GO TO 720
3000 PRINT AT 19,0;"Here is a sinkhole"
3001 PAUSE 200
3002 IF L=8 THEN  GO TO 3050
3003 FOR n=16 TO 1: BEEP .5,n: PAUSE 5:
NEXT n
3010 LET L=L+1
3020 GO TO 720
3030 LET L=1
3040 GO TO 750
3050 LET L=1
3055 GO TO 720
3100 FOR T=1 TO 10
3105 IF E(T)=0 THEN  GO TO 3120
3110 NEXT T
3120 LET E(T)=T
3122 FOR n=0 TO 7: BORDER n: NEXT n
3123 BORDER 6
3125 PRINT AT 19,0;"Hereis treasure:"
3130 PRINT "It is the ";T$(T)
3140 PRINT "Well done"
3145 LET A$(X,Y,L)="."
3150 GO TO 800
3200 PRINT AT 19,0;"Here is a pool"
3201 PAUSE 30000
```

```
3202 LET POOL=1
3203 GO TO 848
3205 LET Z$=INKEY$
3210 IF Z$<>"d" THEN  GO TO 800
3230 GO TO INT (RND*5)*10+3230
3235 LET D=D+INT (RND*5)+1
3237 GO TO 800
3240 PRINT AT 20,0;"You become more inte
lligent"
3245 LET I=I+INT (RND*5)+1
3247 GO TO 800
3250 PRINT AT 20,0;"Oh dear the water wa
s poisoned"
3255 LET S=S-INT (RND*10)+1
3257 GO TO 800
3260 PRINT AT 20,0;"Oh dear-You have dru
nk a worm"
3265 LET D=D-INT (RND*10)+1
3267 GO TO 800
3299 GO TO 3230
3300 PRINT AT 19,0;"Here be a warp"
3302 PAUSE 150
3305
3310 LET X=INT (RND*8)+1
3320 LET Y=INT (RND*8)+1
3330 LET L=INT (RND*8)+1
3332 LET AX=X*2
3334 LET AY=Y*2
3335
3340 GO TO 720
3400 LET M=INT (RND*6)+1
3410 PRINT AT 19,0;"You see a ";M$(M)
3415 PAUSE 250
3430 LET MOD=(M*5)+1
×3440 PRINT AT 19,0;"
```

3 clear lines.

```
3441 PRINT AT 19,0;"You may attack or re
treat"
```

```
3450 INPUT V$
3460 IF V$="a" THEN  GO TO 3500
3470 IF V$<>"r" THEN  GO TO 3430
3471 PRINT AT 19,0;"You have retreated b
ut :            "
3472 IF D>MOD-1 THEN  PRINT "He attacks
and misses"
2390 IF RNAD=2 THEN  PRINT "The magic or
b at ";INT (RND*8)+1;",";INT (RND*8)+1;"
 Level ";INT (RND*8)+1
2400 IF RNAD=3 THEN  PRINT "The magic or
b at ";OR;",";OF;" Level ";ZOT
2410 IF RNAD=4 THEN  PRINT "Yourself bec
oming an orb"
2420 IF RNAD=5 THEN  PRINT "A cracked or
b"
2430 LET D=D-1
2480 IF ARMOUR<45 THEN  LET D=D-INT (RND
*2)
2482 GO TO 800
2500 PRINT AT 19,0;"Here you find gold"
2501 LET GOLD=INT (RND*300)+1
2510 LET GP=GP+GOLD
2520 PRINT AT 20,0;"You find ";GOLD;" go
ld pieces"
2530 LET A$(X,Y,L)="."
2540 GO TO 800
2600 PRINT AT 19,0;"Here you find flares
"
2601 LET FLA=INT (RND*7)+1
2604 PAUSE 100
2606 PRINT AT 19,0;"
              "
2610 LET F=F+FLA
2620 PRINT AT 19,0;"You find ";FLA;" fla
res"
2630 PRINT "You now have ";F;" flares"
2635 LET A$(X,Y,L)="."
2640 GO TO 800
```

```
2660 GO TO 2770
2700 PRINT AT 19,0;"You see a chest"
2702 LET CHEST=1
2703 GO TO 848
2705 PAUSE 30000
2707 LET Z$=INKEY$
2709 IF Z$<>"o" THEN  GO TO 830
2710 PRINT AT 19,0;"You open the chest a
nd"
2712 LET CHEST=0
2714 LET A$(X,Y,L)="."
2715 GO TO 2710+INT (RND*5+1)*10
2720 PRINT "It explodes"
2721 FOR n=1 TO 10: BEEP 1,n: NEXT n
2722 LET S=S-INT (RND*5)+1
2724 GO TO 800
2730 PRINT AT 20,0;"You find ";X;" Flare
s"
2731 LET F=F+X
2732 GO TO 800
2740 PRINT "You find ";Y;" flares "
2750 PRINT "and you find ";INT (GP/30);"
 gold pieces"
2755 GO TO 800
2760 PRINT "Gas..........You stagger fro
m   the room"
2762 LET D=D-INT (RND*3)+1
2764 GO TO 800
2800 PRINT AT 19,0;"You find a book"
2805 LET BOOK=1
2807 GO TO 848
2810 PAUSE 30000
2812 LET Z$=INKEY$
2815 IF Z$<>"o" THEN  GO TO 830
2817 PRINT AT 20,0;"You open the book an
d:"
2818 LET A$(X,Y,L)="."
2819 LET BOOK=0
2820 LET QUE=INT (RND*3)+1
```

```
2830 IF QUE=1 THEN   GO TO 2850
2833 IF QUE=2 THEN   LET GP=GP+600
2835 IF QUE=2 THEN   PRINT "You find 600
gold pieces"
2837 IF QUE=3 THEN   PRINT "A potion of s
trength-"
2838 IF QUE=3 THEN   LET S=S+INT (RND*5)+
1
2845 GO TO 800
2850 LET BUQ=INT (RND*2)+1
2860 IF BUQ=1 THEN   GO TO 2890
2870 PRINT "The book sticks to your hand
s"
2871 IF E(3)=3 THEN   GO TO 2875
2872 LET ARMOUR=0
2875 GO TO 800
2880 IF E(4)=4 THEN   GO TO 2895
2885 BEEP 2,18
3474 IF D<MOD-1 THEN   PRINT "Ouch he hit
s you"
3475 IF D<MOD-1 THEN   LET D=D-INT (RND*3
)
3480 IF ARMOUR<45 THEN   LET D=D-INT (RND
*2)
3481 PAUSE 200
3482 GO TO 800
3500 LET ATT=INT (RND*6)+1
3505 PRINT AT 19,0;"

3510 PRINT AT 19,0;"You attack and score
 ";ATT;" points of damage"
3515 PAUSE 150
3520 LET TATT=TATT+ATT
3525 IF TATT>MOD/2 THEN   GO TO 3550
3527 LET ART=INT (RND*5)+S
3530 IF ART>INT (RND*20)+1 THEN   GO TO 3
533
3531 PRINT "He attacks and hits you"
```

```
  3532 GO TO 3534
  3533 PRINT "He attacks and misses you"
  3534 IF ART<INT (RND*20)+1 THEN  LET S=S
 -INT (RND*4)+1
  3535 IF ART=1 THEN  GO TO 3500
  3536 IF ART=25 OR ART=32 THEN  LET ART=1
  3537 IF ART=1 THEN  GO TO 3532
  3540 PAUSE 150
  3545 GO TO 3440
×3550 PRINT AT 19,0;"
                     "
×3552 PRINT AT 19,0;"Monster is  dead
                    "
  3555 LET MGPS=INT (RND*900)+1
  3560 PRINT AT 20,0;"You get his ";MGPS;"
  gold pieces"
  3570 LET GP=GP+MGPS
  3573 LET TATT=0
  3574 LET A$(X,Y,L)="."
  3575 GO TO 800
  3600 PRINT AT 19,0;"Here is a vendor"
  3601 PRINT "Do you wish to trade?"
  3602 LET VEND=1
  3604 GO TO 848
  3609 PAUSE 30000
  3610 LET Z$=INKEY$
  3620 IF Z$="i" THEN  GO TO 848
  3628 IF Z$<>"y" THEN  GO TO 861
  3630 FOR Z=1 TO 10
  3640 IF E(Z)<>0 THEN  GO TO 3700
  3650 NEXT Z
  3655 CLS
  3660 GO TO 3770
  3700 CLS
  3701 LET TPR=INT (RND*3000)+1
×3702 PRINT "Do you wish sell the
      ";T$(Z);"                for ";TPR;" GPS
  ?"
  3720 INPUT S$
```

```
3730 IF S$="n" THEN   NEXT Z
3740 LET GP=GP+TPR
3750 LET E(Z)=0
3760 NEXT Z
3770 IF GP<1000 THEN   GO TO 720
3775 LET P=INT (RND*3)+1
3780 PRINT "Do you wish to buy a potion
of ";P$(P);" for 1000 GPS?"
3790 INPUT Q$
3795 IF Q$="y" THEN   GO TO 3800
3797 GO TO 3900
3800 IF P=1 THEN   LET I=I+INT (RND*6)+1
3810 IF P=2 THEN   LET S=S+INT (RND*6)+1
3820 IF P=3 THEN   LET D=D+INT (RND*6)+1
3825 LET GP=GP-1000
3830 GO TO 3770
3930 PRINT "Do you wish to buy armour?"
3940 INPUT Q$
3950 IF Q$="y" THEN   GO TO 460
3960 GO TO 720
4000 CLS
4005 FOR n=1 TO 20: LET ki=INT (RND*16)+
1: BEEP .5,ki: NEXT n
4010 PRINT "My goodness gracious me-"
4025 PRINT "You've found the magic orb"
4026 PAUSE 100
4027 CLS
4030 LET A$(OR,OF,ZOT)="."
4040 LET E(10)=0
4050 LET OOZ=1
4060 GO TO 720
4100 CLS
4110 PRINT "You got out with:"
4115 FOR T=1 TO 10
4120 IF E(T)<>0 THEN   PRINT T$(T)
4130 NEXT T
4140 PRINT "You had ";GP;" gold pieces "
4150 PRINT "And ";F;" flares"
4160 IF OOZ=1 THEN   GO TO 4180
```

```
4170 PRINT "But your mission was a failu
re, "
4175 PRINT "Because you emerged from the
     maze without the magic orb"
4178 GO SUB 7040
4179 STOP
4180 PRINT "Your mission was a complete
     success"
4190 PRINT "You got the magic orb"
4195 GO SUB 7040
4200 PRINT "Well done"
4210 STOP
5000 CLS
5010 PRINT "You are dead"
5020 PRINT
5030 PRINT "You died with"
5040 GO TO 4115
7000 CLS : PRINT "Your strength is ";S:
PRINT "Your intelligence is ";I: PRINT "
Your dexterity is ";D
7010 PRINT "You have ";ARMOUR;" points w
orth of armour"
7020 PRINT "You have ";GP;" Gold pieces"
: PRINT "You have ";F;" flares": GO SUB
7040: GO TO 720
7030 FOR t=1 TO 10: IF E(t)<>0 THEN  PRI
NT T$(t): IF ooz=1 THEN  PRINT "and the
magic orb"
7040 LET TOTR=F+S+GP+I+D+(OOZ*1000)+ARMO
UR+1000*(E(1)+E(2)+E(3)+E(4)+E(5)+E(6)+E
(7)+E(8)+E(9)+E(10))
7050 PRINT "So your score is ";totr: PAU
SE 0: RETURN
```

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The Author

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